

Town Council of Pretoria.

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TWENTY-FOURTH

# Annual Report

of the

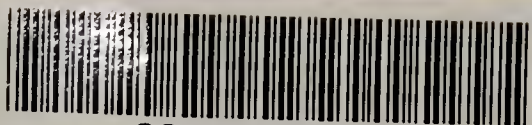
## Medical Officer of Health

for the

Year 1927-1928.

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Pretoria :  
Good Hope Printing Works  
1928



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# Municipal Council of Pretoria.

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From the MEDICAL OFFICER OF HEALTH.

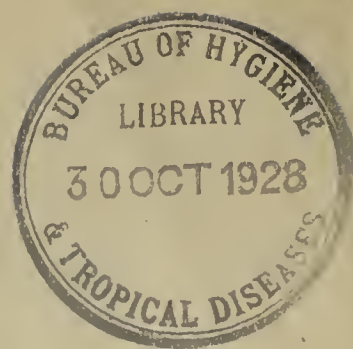
TELEPHONE 1221

P.O. Box 234.

Pretoria,.....192

WITH COMPLIMENTS





Town Council of Pretoria.

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# Annual Report

of the

# Medical Officer of Health

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# INTRODUCTORY LETTER.

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TO HIS WORSHIP THE MAYOR

AND MEMBERS OF THE TOWN COUNCIL.

Ladies and Gentlemen,

I have the honour to present the Twenty-fourth Annual Report on the state of Health and Sanitary Conditions in the City of Pretoria for the year 1st July, 1927, to 30th June, 1928.

The Vital Statistics of the European population are again satisfactory, although the death rate is a little higher than that of the previous year. This is partly accidental owing to the occurrence of an unusually large number of deaths from sub-acute and chronic diseases in the period under review; it is also partly owing to a greater prevalence of bowel complaints in infants and young children.

The Vital Statistics of the Coloured population remain far from satisfactory in spite of much work which has been done on their behalf. The basic trouble here is, I believe, ignorance on the one hand, and inadequate financial resources on the other which result in a low standard of living, inadequate nutrition and overcrowding.

I have again to record my appreciation of the good work done by the staffs of the Health Department and the Isolation Hospital during the year, and to thank the members of the Health Committee for the support and encouragement which they have extended to the Department.

I am,

Ladies and Gentlemen,

Your obedient servant,

J. J. BOYD,  
Medical Officer of Health.

# HEALTH DEPARTMENT.

STAFF AS AT 30th JUNE, 1928.

---

J. J. BOYD, M.D., D.P.H. ... ..	Medical Officer of Health.
W. N. PATON ... ..	Chief Sanitary Inspector.
H. W. GREGORY ... ..	Sanitary Inspector.
G. E. PARTRIDGE ... ..	Sanitary Inspector.
W. G. GRAHAM ... ..	Sanitary Inspector.
L. DRYSDALE ... ..	Sanitary Inspector.
F. T. E. NICHOLSON ... ..	Sanitary Inspector.
W. BLACKMORE ... ..	Temporary Sanitary Inspector.
K. C. J. LUCOUW ... ..	Infectious Diseases Inspector.
J. B. FISHER ... ..	Dairy Inspector.
L. E. THOMAS ... ..	Disinfecting Officer.
S. HEATHER ... ..	Lady Health Visitor.
W. WELCH ... ..	Chief Clerk.
F. L. THORNLEY ... ..	Typist and Record Clerk.
W. G. FUNSTON ... ..	Clerk.
L. QUAYLE ... ..	Junior.
A. W. THOM ... ..	Caretaker, Wash-houses, etc.
R. HERMANUS ... ..	Coloured Nurse-Midwife.
J. PAUL ... ..	Coloured Nurse.

## ISOLATION HOSPITAL.

A. F. BREMNER ... ..	Matron.
A. D. MACKINTOSH ... ..	Nursing Sister.
G. M. HUTCHINSON ... ..	Nursing Sister.
S. P. LINDE ... ..	Probationer Nurse.
A. DE KLERCK ... ..	Probationer Nurse.
D. TEN NAPEL ... ..	Probationer Nurse.
M. TAYLOR ... ..	Cook, etc.

## ABATTOIRS.

G. PILDITCH ... ..	Superintendent Meat Inspector.
J. L. COETZEE ... ..	Assistant Meat Inspector.

## ANTI-VENEREAL CLINIC.

A. PIJPER, M.D. ... ..	Medical Officer.
Assisted by a fully trained European Nurse, a trained Coloured Nurse, and a Native male orderly.	



## Town Council of Pretoria.

# Twenty-fourth Annual Report OF THE Medical Officer of Health.

YEAR 1st JULY, 1927, TO 30th JUNE, 1928.

**Latitude of Pretoria:** 25 degrees, 44 minutes, 30 seconds, South.

**Longitude of Pretoria:** 1 hour, 52 minutes, 48 seconds, East.

**Mean Altitude of Pretoria:** 4,480 feet.

**Temperature of Pretoria:** (From statistics kindly supplied by the Chief Meteorologist, Pretoria):

	Mean Max.	Mean Min.	Highest Reading.		Lowest Reading.		Rainfall. Inches. Days.
1927.							
July ... ..	69.51	37.83	82.9 on the 2nd.		32.5 on the 16th.		1.35 on . 3
Aug. ... ..	71.1	40.0	78.3 ,, 31st.		33.2 ,, 27th.		0.15 ,, 2
Sept. ... ..	84.05	49.1	95.1 ,, 10th.		39.0 ,, 1st.		0.39 ,, 3
Oct. ... ..	81.9	55.76	95.3 ,, 4th.		51.0 ,, 23rd.		5.76 ,, 10
Nov. ... ..	86.4	58.0	94.9 ,, 12th.		50.1 ,, 13th.		0.84 ,, 7
Dec. ... ..	87.4	61.7	96.0 ,, 15th.		55.4 ,, 3rd.		4.27 ,, 13
1928.							
Jan. ... ..	83.9	62.4	92.2 ,, 25th.		55.9 ,, 8th.		11.19 ,, 14
Feb. ... ..	82.6	59.7	88.9 ,, 27th.		51.3 ,, 28th.		3.49 ,, 11
March ... ..	81.7	57.4	88.9 ,, 25th.		47.4 ,, 31st.		4.29 ,, 7
April ... ..	78.7	52.1	86.6 ,, 5th.		44.4 ,, 19th.		1.20 ,, 3
May ... ..	72.9	41.7	81.0 ,, 1st.		35.0 ,, 24th.		0.16 ,, 2
June ... ..	70.0	36.1	79.6 ,, 7th.		28.2 ,, 28th.		0.02 ,, 2
							33.11 ,, 77

### Area of Municipality:

Exclusive of Town Lands: 16 $\frac{1}{4}$  square miles.

Inclusive of Town Lands: 40 square miles.

The town is built on and between parallel ranges of quartzite hills running East and West, the soil in the valley being largely shale.

### Population:

The total European population of Pretoria, inclusive of inmates of Central Prison, Mental Hospital and Leper Asylum as obtained at the Census in May 1926, was 42,465, comprising 21,858 males and 20,607 females.

Of these persons 1,033 males and 437 females were inmates of the institutions mentioned above and should not, therefore, be included in the population of Pretoria.

The numbers of the European population at May 1926, were therefore: Males 20,825, females 20,170. Total, 40,995.

The population at 31st December, 1927, is estimated to be:

Europeans ... ..	42,800
Coloured Persons ... ..	23,000

The principal vital statistics for the year are:

	European.	Native.	Other S.A. Coloured.	Asiatics.	All Coloured.	Total
Population ... ..	42,800	19,500	1,825	1,675	23,000	65,800
Birth Rate: Corrected for out- ward transfers ... ..	23.24	14.00	53.70	50.15	19.78	22.03
Death Rate: Corrected for out- ward transfers ... ..	8.62	17.13	32.33	35.22	19.17	12.31
Infantile Mortality per 1,000 births ... ..	61.30	483.51	163.26	166.67	356.04	153.79
Percentage of Illegitimate to total births ... ..	5.22	39.92	48.98	2.38	34.94	14.55
Death Rate: Tuberculosis (all forms) ... ..	0.23	0.92	3.28	2.38	1.21	0.57

#### Births:

1,175 European births were reported as occurring within the Municipal area, but 180 of the infants were born of mothers not resident in the town.

The **Pretoria Births** therefore number 995.

This is an increase over the previous year of 108.

The **European Birth-rate** calculated on the estimated population is 23.24 per 1,000, as compared with 21.37 for the previous twelve months.

The **Coloured Births** numbered 469. Fourteen of the infants were born to non-resident parents. The Pretoria births therefore numbered 455, being eleven more than in the previous year. They comprise 273 Natives, 98 Eurafricans and 84 Asiatics.

The **Coloured Birth-rates** are: Natives, 14.0 per 1,000; Eurafrican, 53.7 per 1,000; and Asiatic, 50.15 per 1,000.

**Rates of Natural Increase**, being the excess of births over deaths in proportion to population were as follows: European, 14.64 per 1,000; Eurafrican, 21.37 per 1,000; Asiatic, 14.93 per 1,000. As regards Natives there was a natural decrease of 3.13 per 1,000. The number of Native deaths exceeded the number of births by 61. Any increase in the Native population in the town must evidently be due to immigration from the country. Taking the Coloured Population as a whole, the rate of natural increase is almost nil, viz. 0.61 per 1,000.

**Illegitimacy:** Fifty-two of the European births were illegitimate, being 5.22 per cent. of the total births. The average rate for the previous five years is 4.44 per cent.

**Deaths:** 1,208 Deaths were certified during the year. Of these 208 European and 190 Coloured persons were inmates of hospitals and other institutions, and had not been resident in the Municipality prior to admission to such institutions. These include 193 deaths in General and Private Hospitals, 109 in the Mental Hospital and 48 in the Leper Asylum.

There remain 810 deaths giving a **death-rate** on the **total population** of **12.31 per 1,000** as compared with 10.2 for the previous twelve months.

The deaths in the various races were:

European ... ..	369	Eurafrican ... ..	59
Native ... ..	334	Asiatic ... ..	48



The **European death-rate** is therefore **8.6 per 1,000** as compared with 6.99 in the previous year. When corrected for age and sex by the factor supplied by the Census Office the rate becomes 9.28.

The **Coloured death-rates** are: Native, 17.13 per 1,000; Eurafrian, 32.33; Asiatic, 35.22; and All Coloured, 19.17; as compared with 16.00 for the previous twelve months. The subjoined table gives a comparison with some other South African towns and with England and Wales.

#### ENGLAND AND WALES.

Birth Rate, Death Rate, and Infantile Mortality during the Year 1927 (Provisional Figures).

	Birth Rate per 1,000 Total Population.	Deaths per 1,000 Population. (Crude Rate).	Deaths under one year per 1,000 births.
England and Wales ... ..	16.7	12.3	69
107 county boroughs and great towns, including London ... ..	17.2	12.3	71
155 smaller towns (populations from 20,000 to 50,000 in 1921) ... ..	16.5	11.4	68
London ... ..	16.1	11.9	59

The death rate for England and Wales relates to the whole population, but that for London and the two groups of towns to the civil population only.

The birth rate for England and Wales is 1.1 per 1,000 below that of 1926, and is the lowest rate recorded since the establishment of civil registration. The death rate is 0.7 per 1,000 above that of 1926, the excess being due to the high mortality of the first and fourth quarters of the year. The infantile mortality rate is equal to that of 1923, the lowest on record; the rate in 1926 was 70 per 1,000 births.

#### SOUTH AFRICAN TOWNS.

Town.	Year Ending.	Birth Rates.		Death Rates.		Infantile Mortality.	
		Euro- pean.	All Coloured.	Euro- pean.	All Coloured.	Euro- pean.	All Coloured.
Pretoria ... ..	30.6.28	23.24	19.78	8.62	19.17	61.30	356.04
Kimberley ... ..	„	21.2	28.8	11.1	21.4	76.4	102.2
Durban ... ..	„	17.34	14.5	8.28	9.58	—	—
Port Elizabeth ... ..	„	25.64	39.93	11.87	27.18	99.5	232.6
East London ... ..	„	22.04	41.4	8.9	53.9	54.0	543.0
Pietermaritzburg ... ..	„	17.63	—	7.87	12.15	49.27	—
Capetown							
Bloemfontein ... ..	„	21.8	18.9	7.49	36	77.6	668
Johannesburg							

#### Infantile Mortality:—

The total number of infants who died before the end of their first year of life was 263. Of these 91 were Europeans and 172 were Coloured infants. 30 of the European and 10 of the Coloured infants either belonged to mothers from the country who had come to town for confinement and died from congenital causes, or were brought to Pretoria already suffering from the disease which caused death.

There were therefore 61 European and 162 Coloured infantile deaths belonging to Pretoria, and on these figures the rates are based.

**Europeans.—The European infantile mortality rate** for the year is **61.3 per 1,000 births**. This is considerably higher than last year's rate of 48.48 per 1,000. The increase is chiefly due to diarrhoeal diseases which accounted for 19 deaths this year in place of six in the previous twelve months. Of the 61 deaths, 27 were due to congenital causes, 19 to diarrhoeal disease, 9 to bronchitis and broncho-pneumonia, one to marasmus, three to infectious disease, one to cerebro-spinal meningitis and one to homicide.



**Congenital Causes** give a mortality rate of 27.2 per 1,000. Only eleven of the deaths were due to premature birth. Many of these were attributed to ill-health, accident of shock during pregnancy. Ten deaths were due to congenital defect or disease, and six to injury at birth.

**Enteritis** gives a rate of 19.1 per 1,000 as contrasted with 6.6 in the previous year. Five of the deaths occurred under three months of age; five between three and six months, and nine over six months. With three exceptions—two of whom were illegitimate—all these infants had been artificially fed for some time before the onset of illness. No fewer than eight of the infants were illegitimate and one other was premature at birth. Eight of the deaths were in the central area and eight in the West End. Eight of the deaths occurred in October-November and nine in February to April.

**Marasmus.**—This infant was illegitimate and had been breast fed until admitted to Hospital.

**Broncho-Pneumonia** and **Bronchitis.**—Five of the deaths were in the central area.

**Infectious Disease.**—One death was due to whooping cough and two to influenza.

**Meningitis.**—This child was one of twins whose mother died shortly after the birth.

Of the total 61 deaths, eleven occurred on the first day of life, 21 in the first week and 27 in the first month, leaving 34 deaths in the later months, as contrasted with 16 in the previous year. The increase in European infantile mortality is therefore entirely in those over one month of age.

**European Stillbirths** numbered 22. In 12 cases the infant was delivered at full time and in the others between the sixth and ninth months. In five instances labour had been very prolonged, and in five there had been illness or a fall or strain had occurred.

**District Infantile Mortality** (vide Table 3).—The highest rate was in Good Hope, an area which had a low rate (50 per 1,000) in the two previous years. The high rate is chiefly due, however, to congenital causes, which so far are hardly touched by public health work. The rates in two other districts are over 100, viz: Brooklyn and North-West Central. When we take the average rates for the quinquennium 1923-1928 we find that the lowest rates were recorded in Sunnyside, Riviera and Hatfield, and the highest in Good Hope, Railway Reserve and West Central.

**Deaths at Age 1—5 Years.**—There were 27 deaths at this age, a much higher number than has been registered for many years. In the previous twelve months the corresponding figure was 12, and the annual average for 1922-1927 was 15.6.

The following were the causes of death, viz.: Gastro-enteritis 8; broncho-pneumonia 5; infectious diseases 7; accident and homicide 4; other causes 3.

Of the total excess over last year 5 are due to gastro-enteritis; 3 to broncho-pneumonia; 5 to infectious diseases; and 3 to accident.

**Castro-Enteritis.**—The rise here corresponds to the similar rise in infantile mortality ascribed to diarrhoeal disease. Six of the deaths were in the Central area, including Good Hope. Six of the children were in their second, and two in their third year. Several of the cases were evidently of a dysenteric nature. The deaths were distributed throughout the year.

**Broncho-Pneumonia.**—Most of these deaths were in poor class homes, two being in Good Hope.

**Infectious Diseases.**—Three of the deaths were due to Measles, two being in one house. Two were ascribed to Scarlet Fever, but one of these was probably not due to that cause. Two were due to Influenza.

#### **Report of Health Visitor (Miss S. Heather):—**

The following visits were made:—

First visits to newly-born infants ... ..	644
Subsequent visits to these infants ... ..	1,905
Special visits to sick children . ... ..	174
Stillbirths investigated ... ..	22
Deaths of children under 5 years investigated ... ..	88
Puerperal septicaemia cases investigated ... ..	3
Measles cases investigated ... ..	20



Of the 88 deaths investigated, 61 occurred in children under 1 year and 27 in children 1—5 years.

**Child Welfare Bureau.**—During the year the Bureau has been open on Tuesday and Friday afternoons. 274 mothers have brought 277 babies for weighing and advice, paying in all 1,649 visits. Six babies who were brought to the Bureau during the year have died.

Visits to Child Welfare Bureau divided into Districts:—

District.	Mothers.	Babies.	Visits.
Town, S.W. Central ... ..	38	40	218
Town, S.E. Central ... ..	53	53	352
Town, N.W. Central ... ..	38	38	181
Town, N.E. Central ... ..	30	30	165
West End ... ..	41	41	150
Good Hope ... ..	10	10	24
Railway Reserve ... ..	15	15	40
Prison and Barracks ... ..	13	14	45
Arcadia ... ..	11	11	125
Sunnyside ... ..	39	39	283
Riviera ... ..	5	5	24
Hatfield ... ..	1	1	1
Roberts Heights ... ..	1	1	2
Outside Areas ... ..	14	14	39
<b>TOTAL ... ..</b>	<b>274</b>	<b>277</b>	<b>1,649</b>

During the year 55 women in poor circumstances were supplied with one pint of milk per day for periods varying from one to twelve months. One consumptive case was supplied with two pints per day for several months.

239 tins of Lactagol were given away or sold. The majority of women find this very useful.

230 pots of Virol were given away or sold.

Approximately 1,000 tins of Lactogen were given away or sold.

Approximately 450 tins of Glaxo were given away or sold.

20 bottles of Cod-liver Oil were given away.

11 bottles of Ostelin were given away or sold.

### Coloured Children:—

The deaths of Coloured children under one year of age numbered 162, comprising 132 Natives, 16 Eurafricans and 14 Asiatics. In the cases of Natives and Asiatics the numbers are considerably greater than in the previous year.

**Natives.**—The infantile mortality rate is 483.5 per 1,000. 45 of the deaths were due to diarrhoeal diseases, 47 to bronchitis and broncho-pneumonia, 34 to congenital causes and 3 to whooping cough.

**Eurafricans.**—The infantile mortality rate is 163.26 per 1,000, a marked improvement on the previous year when a rate of 246 was recorded. There were only two deaths due to diarrhoeal disease: six to broncho-pneumonia and seven to congenital causes. These children are peculiarly susceptible to lung trouble, often suffering from repeated attacks of bronchitis.

**Asiatics.**—The infantile mortality rate is 166.67 per 1,000. Five of the deaths were due to diarrhoeal disease, and six to bronchitis and broncho-pneumonia.

**Age 1—5 Years.**—There were 95 deaths at this age period, which is greatly in excess of the figure for the previous 12 months, viz.: 66. Of these deaths 73 were Natives, 14 were Eurafricans, and 9 were Asiatics. Of the Native deaths 28 were due to diarrhoeal disease, and 31 to bronchitis and broncho-pneumonia. Of the Eurafrican deaths, four were due to diarrhoea, four to broncho-pneumonia and two to whooping cough. Of the Asiatic deaths six were due to broncho-pneumonia, two to diarrhoea, and one to whooping cough.

**The Coloured Nurse-Midwife** (Hermanus) employed by the Council carried out the following work:—

First visits to newly-born infants ... ..	111
Subsequent visits to these infants ... ..	976
Special visits to sick children ... ..	230
Stillbirths investigated ... ..	12
Deaths under 5 years investigated ... ..	25
Confinement cases attended ... ..	61

Of the 25 deaths investigated, 19 occurred in children under one year and six in children from 1—5 years.

**Report of Coloured Nurse (Paul):—**

First visits to newly-born infants ... ..	144
Subsequent visits to these infants ... ..	706
Special visits to sick children ... ..	48
Stillbirths investigated ... ..	5
Deaths under 5 years investigated ... ..	84
Puerperal septicaemia cases investigated ... ..	4
Confinement cases attended ... ..	6

During the absence of Nurse Hermanus on leave Nurse Paul attended to her confinement cases.

This nurse also attends at the Municipal Compound Hospital every morning when Coloured and Native children are brought to the Medical Officer of Health; and at the Venereal Clinics when open for the treatment of women and children.

**Infant Welfare Bureaux conducted by the Child Welfare Society.**

In addition to the bureaux for Europeans at the Bloed Street School, and that for Coloured Infants in the Cape Location, a third has been recently opened by the Society at the premises of the “Children’s Shelter” in the West End. Each of these bureaux caters for the district in which it is situated. Names of all newly-born infants are supplied by the Health Office to those in charge of the bureaux. The mothers are visited and invited to attend regularly with the baby for weighing, etc. Should an infant fail to make its regular appearance, enquiry is made as to the cause of absence, and if this is due to sickness the case is at once reported to the Health Department. A similar report is made where a baby does not appear to be thriving properly.

The bureaux work also includes the sale of material for layettes at a reduced price, and the supervision of making these by the expectant mothers.

All this work is a most useful supplement to the Infant Welfare Work done by the Department, and the co-operation of the Society is very much appreciated.

**Deaths at Ages over 5 Years** numbered 465, being 281 Europeans, 130 Natives, 29 Eurafricans and 25 Asiatics. The total excess of European deaths this year over the preceding year was 79. Of these 33 were children under 5 years of age and 46 were persons over 5 years of age.

The principal causes of death were:—

	EUROPEAN.		COLOURED.	
	1927-28.	Average 5 years. 1923-27.	1927-28.	Average 5 years. 1923-27.
Cancer ... ..	40	25.2	5	3.2
Heart Disease ... ..	49	32.2	22	16.2
Pneumonia ... ..	15	11.0	25	30.0
Bronchitis and Broncho-pneumonia ... ..	11	10.2	33	11.2
Influenza ... ..	6	11.0	4	9.4
Typhoid Fever ... ..	5	3.6	5	10.4
Tuberculosis ... ..	10	9.4	25	22.4
Cerebral Haemorrhage ... ..	15	8.8	6	1.8
Kidney Disease (Nephritis) ... ..	11	12.8	6	4.4
Appendicitis ... ..	6	3.4	1	1.6
Diseases of the Ear ... ..	4	—	—	—
Diseases of the Arteries ... ..	8	5.0	—	—
Diseases of the Liver ... ..	5	3.4	2	—
Disease of Parturition ... ..	1	3.4	6	2.6
Old Age ... ..	6	7.2	5	5.8
Suicide ... ..	9	8.0	—	—
Accident ... ..	24	10.2	7	6.8



**Europeans.**—The excess of European deaths over 5 years of age was due to four principal causes, viz. Cancer, Heart Disease, Cerebral Haemorrhage and Accident. A large part of the excess (30 deaths) was at ages 45-65.

**Cancer.**—Of the 40 European deaths, 33 were at ages over 45 years; 16 were between 45 and 55. The death-rate per 1,000 of the European population is 0.93. The average rate for 1922-1927 was 0.655. The crude rate in England and Wales for 1921-1925 was 1.27 per 1,000. Of these deaths no less than 16 were due to cancer of the stomach; in eight the disease was in other portions of the alimentary canal; in five in the breast; in three in the liver; and in four in uterus and ovaries. In Coloured Persons, four of the deaths were in Natives and one in a Eurafrican.

**Heart Disease.**—The European death-rate is 1.14 per 1,000. The average rate for the period 1922-1927 was 0.84 per 1,000. Here again a large proportion of the deaths, viz. 42, were in persons over 45 years of age. The incidence of this disease is nearly as great on the Coloured as on the European population.

**Influenza.**—Only six European deaths were ascribed to this cause, a much smaller number than has been experienced in recent years.

**Infectious Diseases** other than Influenza accounted for 11 deaths. This is more fully dealt with under "Infectious Diseases" (pp. 12-16).

**Pneumonia and Bronchitis.**—The number of European deaths from these causes is nearly the same as that of last year, and is above the average of recent years. In Coloured Persons the number of deaths from broncho-pneumonia was much above the average.

**Apoplexy (Cerebral Haemorrhage).**—The number of deaths is nearly double the average of the preceding quinquennium. But the number of deaths ascribed to "diseases of arteries" is only 7, so that the total deaths falling under these headings is much the same as last year.

## DISEASES OF PARTURITION.

**Europeans.**—Only two cases of puerperal septicaemia were notified, both in Pretoria West. One of these was fatal. A case of puerperal erysipelas was also notified, but here the symptoms were present prior to confinement. It is noteworthy that there was only one death due to diseases or accidents of parturition. The Maternal Mortality rate was only 1.005 per 1,000.

**Coloured Persons.**—Three cases of puerperal septicaemia were notified, of which two were fatal. There was another death from this cause in which the case had not been notified previously. There was also one death from eclampsia. The Maternal Mortality rate was therefore 8.7 per 1,000. If we take Natives alone it is 10.9. There were no deaths from these causes in Eurafricans. The two Native cases were confined at Pretoria Hospital. The two Indian cases had midwives in attendance.

**Tuberculosis.**—The number of deaths in Europeans is just about the average, and in Coloured persons rather above it. Although the disease is a notifiable one, many cases are not reported until death. During the year 35 notifications were received. Exclusive of six cases brought into Pretoria Hospital from districts outside the Municipality for treatment, the notifications include 14 Europeans and 15 Coloured Persons.

**Europeans.**—In only two of these cases did the infection appear to have been contracted in Pretoria. A large proportion had only been a few months in the town.

**Coloured Persons.**—In one instance the patient was a visitor from Cape Town. Several others had only been in Pretoria for a short time, but there was no evidence as to where infection had been contracted. Many of these cases are only reported a few weeks before death, and this was so in 12 of the 15 cases referred to. Two of the cases were Indians, three Eurafricans and ten Natives.

As regards deaths, nine of the European deaths were due to pulmonary tuberculosis and one in a child to tuberculous adenitis. Only five of these cases had been notified prior to death; and in two instances only a few days before. Six of the cases may have contracted the disease in Pretoria.

As regards deaths in Coloured Persons, most of the 18 Native deaths were in the Locations. In 3 cases the disease appeared to have been contracted outside the Muni-



city. Of the six deaths in Euraficans, one was a case of meningitis in a child under 5 years of age; and one occurred in the Mental Hospital. Most of these cases appear to have contracted the disease in Pretoria. The Indian cases were all young adults. The disease in all these cases was apparently contracted in Pretoria.

Hygienic conditions in the Indian Location and the manner of life of these people unfortunately are such as to be eminently favourable to the spread of the disease.

**Action Taken.**—Four of the European cases were sent to Nelspoort Sanatorium and one to Springkell. Of these cases two are still in the sanatoria. The other three were discharged “improved.”

There is great need for sanatorium and hospital accommodation for Coloured cases. At present little or nothing can be done to help them.

**Accident and Suicide.**—The number of European deaths from these causes, viz. 33, is much above the average of the preceding quinquennium, which approximates 19. The increase is in the number due to accidents, which was more than double the average. Of the 24 deaths due to accident, 10 were due to motor accidents.

**Coloured.**—There were 10 deaths from accident in Coloured Persons, but of these only one was due to a motor accident. Seven were due to burns and scalds.

There is also a striking contrast as regards the ages of persons accidentally killed between Europeans and Coloured Persons. Of the former 20 out of 27 were adults, i.e. over 18 years of age; whilst of the latter 7 out of 10 were children under 15 years.

**Typhoid Fever.**—The total number of cases notified during the year was 132. Of these, however, 63 had been imported into the Municipal area after the onset of illness. Of the 69 other cases, being 50 Europeans and 19 Coloured Persons, six of the former and five of the latter had undoubtedly been infected outside the Municipality although resident here when the illness began. **There remain 58 cases, comprising 44 Europeans and 14 Coloured Persons in which infection may have occurred locally.** The number of such local cases in the previous twelve months was 85, being 62 Europeans and 23 Coloured Persons, so that there has been a definite fall in the prevalence of the disease. The number of deaths in residents of the town was 10, comprising 5 European deaths and 5 deaths in Coloured Persons.

The Attack and Death rates are as follows:—

	Europeans	Coloured Persons
Attack Rate (local cases) ... ..	1.16 per 1,000	0.82 per 1,000
Death Rate (local cases) ... ..	0.117 per 1,000	0.217 per 1,000

**Seasonal Distribution.**—This was rather unusual in that a majority of the local cases occurred in the period February to May. In these four months there were 37 cases, whilst October to January show 29 cases. The late incidence may be correlated with the late onset of the heavy rains, which did not make their appearance till January.

**Europeans.**—As regards the AGE and SEX of Europeans attacked (Table No. 11), 24 were males and 26 were females. 17 were under 10 years of age; 25 were under 15 years; 15 were aged 15-25 years; whilst there were only 10 over 25 years of age.

The drop in the number of cases this year is entirely on the ages under 15 years.

Of the European cases three were infected at the Pretoria Hospital, two of these being members of the nursing staff. Two other cases were secondary to previous cases in the same houses. There remain 39 primary European cases which were distributed in the different quarters of the town as follows, viz.: Central Area, 12; Good Hope, 3; West End, 11; Arcadia, 3; Sunnyside, 2; Hatfield, 3; Louis Botha Home, 4; Brooklyn, 1.

**Central Area.**—In this area practically all houses are on the water-carriage system. Two of the cases were of a doubtful character. Three may have been infected outside the Municipality, and two in the West End. Milk infection appeared probable in two cases. In two of the remaining cases sanitary defects existed on the premises.

**Good Hope.**—Two of the cases were children and together with a secondary case occurred in November. This is a very poor class area and many of the houses are still unsewered. The affected houses were wood and iron buildings in poor condition.

**West End.**—The attack rate was heaviest in this part of the town, which is largely an unsewered area. In only two of the affected houses is there water-carriage drainage. One case was probably infected outside the Municipality. In five instances there had been previous cases in the family in recent years. In two cases milk infection was probable.



**Arcadia.**—Two of the cases were children, and no definite source of infection was ascertained. The other case may have been infected outside the Municipality.

**Sunnyside.**—Both these cases were somewhat doubtful.

**Brooklyn.**—This case was probably infected outside the Municipality.

**Hatfield.**—Two of the cases were probably infected outside the Municipality, and the other may have been due to milk infection, the supply being from a dairy at which a carrier was discovered later.

**Louis Botha Home.**—The cases comprise four children aged 4 to 6 years, the onsets being between the 18th and 28th November. The children had not been away from the orphanage for many months except on the 4th November when, together with five others, they went for a picnic to the Zoo. Very careful enquiry disclosed no source of infection at the picnic. The blood of nine persons at the Home—members of staff and children—was examined. In only one instance was a positive result obtained, this being a female child who had been present at the picnic and was suffering from chickenpox when the specimen was obtained. This child also slept in the same dormitory as the four cases. Whether she was the source of infection remains doubtful as no examination of her stool was made as she had already been inoculated by the mouth (Besredka method). Infection at the picnic appears less likely than infection in the Home as shown by the interval between onset of first and onset of last case. The channel of infection may have been sweets or other foodstuff handled by a carrier. The milk supply was later shown to be open to infection, but the limitation of the cases to one dormitory renders this source somewhat unlikely.

**Milk Infection.**—In March 1928 attention was directed to a certain dairy by the occurrence of three cases all having the same milk supply. The dates of onset of these cases were 14th, 20th and 22nd February. The houses in which they occurred were widely separated from each other, two being in the West End and one in the Central Area. Blood specimens were obtained from all the natives employed at the dairy. Four gave a more or less positive reaction. These four were removed to the Isolation Hospital for further observation. One of these boys proved to be a urinary carrier. He refused treatment and was sent back to his kraal. In addition to the three cases mentioned, seven other cases which occurred in October, November and December had obtained their milk from the incriminated dairy.

**Coloured Cases.**—Four were male adults living in compounds. One of these was probably infected outside the Municipality and two appear to have been infected from previous cases in the same compounds, who had been infected prior to arrival.

Only five cases occurred in the Locations, four being children and one a male adult. One of these cases was of a very doubtful character. Three cases occurred in the European area of the town, one at Roberts Heights and one at Artillery Barracks. The last case was probably infected outside the Municipality. 48 local cases occurred on sewered premises and 20 on unsewered premises.

Diagnosis of cases was in almost every instance confirmed by examination of blood for complement fixation.

**Action Taken.**—112 of the cases were removed to Hospital. These include 88 Europeans and 24 Coloured Persons. The others were kept under observation at their own homes, instructions regarding prevention of spread of infection being issued to those in charge, and disinfectants supplied. Anti-typhoid inoculation by mouth (Besredka method) was offered to all house contacts and usually accepted. 387 such persons, 80 per cent. being Europeans, were thus inoculated. In all cases careful enquiry was made as to possible sources of infection, and as to the existence of carriers. Blood specimens were obtained from 15 Europeans and 46 Coloured persons. Of these five proved positive, and further examinations of excretions were made. Six specimens of stools examined all proved negative, whilst of seven urines only one, from the carrier in the dairy referred to, proved positive. General anti-typhoid inoculation was carried out in November in the Good Hope area. 1,015 persons accepted treatment, whilst seventeen refused. Anti-typhoid pills were also distributed to all restaurants, tea-rooms, boarding-houses and dairies in town and to a certain number of country dairies supplying milk to Pretoria. Altogether 1,217 persons were treated under these categories, mostly natives. The **European attack rate** for Typhoid Fever has averaged for the **last 5 years 1.37 per 1,000**, as contrasted with 2.08 per 1,000 in 1918-1923 and 2.27 per 1,000 in 1915-1918. Much higher rates were recorded prior to 1913. Much of the reduction is due to the reduced incidence in the Central Area where the average annual attack rate has fallen from 2.02 in 1918-1923 to 0.96 in 1923-1928.



**Scarlet Fever.**—Altogether **195 cases** were notified during the year as contrasted with only 26 in the previous twelve months. Five of these cases were imported, i.e. brought into town after the onset of illness. Of the 190 local cases, 188 were Europeans and only two Coloured Persons, viz.: one Eurafrican and one Indian.

**Europeans.**—Besides the imported cases five others had been infected outside the Municipal area. Thirty-one cases were secondary to previous cases in the same houses. The number of primary cases arising in the town was therefore 152. There were two distinct outbreaks in the course of the year, the first being in September 1927 when 31 cases were notified, and the second in the period April to June in which 108 cases were notified. During the other eight months only 56 cases were reported. The September outbreak was chiefly amongst children attending Sunnyside School and their friends and neighbours. The outbreak in the School began in June 1927, and continuing through July and August became serious in September, in which month there were twelve primary cases infected at the school. The majority of these cases occurred in two adjoining class rooms, and other facts were such as to indicate that infection was not passing directly from one child to another, but that the rooms themselves were retaining infection. Very thorough disinfection of the two rooms was therefore carried out on the 27th September and after this there was no further spread of infection in this school. During the next few months the disease practically disappeared from the town, there being only two primary cases in November and one in December.

In the latter half of the year under review, viz. January to June 1928, the distribution of the disease was quite different. Out of 131 cases, 34 were in West End and 52 in the Central area. There were also a few cases in Sunnyside and Railway Reserve. Whilst most of the cases appeared to be due to infection from neighbours or friends, there was also some extension of the infection in two schools, viz. Gymnasium (10 cases) and Pretoria West Afrikaans Medium (8 cases).

As regards secondary infection, it was again noted that the proportion of definite secondary cases was greater when the primary case was kept at home than when it was removed to the Isolation Hospital, in spite of the fact that the cases taken to hospital came from the poorer or more crowded homes. Of 128 susceptibles under 17 years where the primary case was kept at home, 14.8 per cent. developed the disease, whilst of 91 susceptibles where the case was removed to hospital 11 per cent. developed the disease. The advantage of hospital isolation is, however, of still greater importance in preventing the spread of the disease to the children in neighbouring houses.

There were three deaths from the disease, all Europeans.

The average attack rate from Scarlet Fever on the whole European population during the period **1923-1928 has been 1.9 per 1,000**, which is a great improvement on the averages of previous periods; thus

1911-1915.—Average attack rate	...	...	...	...	5.1 per 1,000
1915-1919	„	„	„	...	6.2 per 1,000
1919-1923	„	„	„	...	2.9 per 1,000

**Action Taken** was on the usual lines. Seventy-one of the cases were removed to the Isolation Hospital. The other cases were quarantined in their own homes, printed instructions being issued to parents, and frequent visits made by the Inspector to see that Regulations were carried out. Disinfectants were supplied during the course of the illness, and terminal disinfection of rooms, bedding and clothing was carried out on removal of the case to hospital or on its release from quarantine at home.

At the beginning of May, in view of the threat of a serious epidemic produced by extensive prevalence of the disease in Johannesburg and other parts of the country, meteorological conditions favourable to the spread of the infection and the presence in the town of a large susceptible population, warning notices were by the courtesy of the Press inserted in the local newspapers, and special circulars were addressed to the Principals of all schools recommending the adoption of special precautions.

During the course of the year it was found necessary to close the grades and Std. 1 in Sunnyside School, and the grades in the Gymnasium School for short periods.

**Malaria.**—117 cases of this disease were notified. Of these, however, 72 had been infected outside the Municipality. The local cases, of which several were of a doubtful character, numbered 45 and occurred in the months February to May.

In the preceding twelve months only 12 cases, of which 4 were local, were notified. During the last 24 years malaria has only rarely made its appearance as a local infection. The most severe outbreak was in 1919-1920, when 157 local European cases were reported. As on previous occasions, the local outbreak was coincident with a very severe epidemic in the Northern Transvaal. Infection was frequently introduced into the town.



Of the local cases 18 were in the West End, 10 in the Central area, and five in Sunnyside. Most of the cases were adults. It was again noted that cases were most apt to occur in the neighbourhood of the spruits and Railway lines going to Northern and Eastern Transvaal.

**Action Taken.**—Anti-mosquito work which is carried out regularly; special attention was paid to places where the breeding places of the anopheles mosquito were most likely to exist. Instructions to patients were issued, and information bearing on the outbreak and possible precautions were published by the courtesy of the local Press.

**Diphtheria.**—There were 37 cases notified, but 10 of these had been imported into the town after the onset of illness. The number of **local cases** is therefore 27. The number in the previous twelve months was 22. Of the cases this year 25 were Europeans and 2 were Coloured persons.

**Europeans.**—There was only one secondary case. Of the 24 primary cases, five were of a doubtful character. One was a hospital nurse infected in the course of her work. Of the other 18 cases, five were in the West End and 10 were in the Eastern Suburbs (Arcadia, Hatfield and Sunnyside). In the first eight months, viz. July to February, there were only two genuine primary cases. Between 1st March and 31st May 19 local cases were reported. In only a few instances could any relation between these cases be established.

The **Coloured** cases were both Indian children, and in both the premises there were sanitary defects existing.

There were two deaths from the disease, both in Europeans.

**Action Taken.**—Ten of the cases were removed to the Isolation Hospital and seven to the General Hospital. The other cases were quarantined in their own homes, instructions being issued and disinfectants supplied. Disinfection of bedding and premises was carried out. Thirty-one swabs were taken from the throats of cases and suspected cases or carriers. Of these 25 were negative and six were positive. No carriers were discovered. 132,000 units of antitoxin were issued to medical practitioners for use in notified cases.

**Measles.**—564 primary cases of this disease were notified. In the houses in which the European cases occurred there were 719 susceptible persons, i.e. children who had not previously had the disease. Of these 574 developed the disease, constituting secondary cases. The total number of European cases was therefore 1,138.

There were five deaths from the disease, being four Europeans and one Coloured person.

Of the primary cases 540 were Europeans and 24 were Coloured persons.

**Europeans.**—110 of the primary cases were under 5 years of age and 383 between 5 and 15 years, and of the secondary cases 296 were under 5 years and 278 between 5 and 15 years.

In June 1927 the town was free from measles. In July there were 15 cases, including five infected outside. The disease was present in epidemic form from August to December, during which period 502 cases were notified. In January 27 cases were reported and in the period 1st February to 30th June only 20 cases were reported. In August (87 cases) the disease was chiefly spread in three schools, viz. Brooklyn (39 cases) into which infection was introduced by a child from Waterkloof; Oost Eind, infection being introduced by a child infected in East London; and Railway School. In September (107 cases) the disease continued to spread in Oost Eind School (19 cases) and there were outbreaks in Hatfield School (15 cases), Burgher Right and Bloed Street Schools. There was also a considerable extension of the disease outside the schools and at the General Hospital. In October (155 cases) there were outbreaks in Pretoria West Afrikaans Medium School (28 cases), the Gymnasium School (12 cases); whilst there were further extensions in Hatfield, Burgher Right and Bloed Street Schools. 48 primary cases were under school age. In November (88 cases) the Eendracht School was invaded, whilst outbreaks continued in Burgher Right, Afrikaans West and Gymnasium. In December (65 cases) the disease continued in Eendracht, Gymnasium, and Afrikaans West. With the closing of the schools for the long vacation the epidemic rapidly disappeared. Of the 20 cases which were notified between 1st February and 30th June, eight were of a very doubtful character. Seven were infected directly or indirectly from cases at Pretoria North and Premier Mine.



**Action Taken.**—Quarantine of cases and susceptible contacts. Exclusion from school of susceptibles in classes which had been exposed to infection. In September the lower classes in Hatfield School were closed by order, and in October the same procedure was applied to Hillcrest Convent School.

The low fatality of the disease in recent years is noteworthy, and may be associated with the improved sanitary conditions of the town, and with the earlier and more careful treatment of cases which has been brought about by notification and consequent action by the Health Department.

**Whooping Cough.**—331 primary cases of this disease were notified. Of these 5 had been brought into town after the onset of illness and 12 others had been infected outside, though resident here when the illness began. Of the locally infected cases 277 were Europeans and 37 Coloured persons. There is no doubt, however, that many Coloured cases were not reported.

**Europeans.**—In the houses where European cases occurred there were resident 333 susceptible children and from these 245 secondary cases developed.

As regards primary European cases, excluding imported cases, 117 were under 5 years of age, 158 between 5 and 10 years and only 13 over that age.

In the preceding 12 months only 114 cases were notified. The difference in the two years is largely accounted for by the spread of the infection in certain schools during 1927-1928. The Gymnasium and Sunnyside Schools and Hillcrest Convent were particularly affected. Apart from school infection the area which suffers most is the Central, where there is much more intimate contact between children under school age than in the suburban districts. The disease was most prevalent in April and May.

There were eleven deaths from this disease, being one European and ten Coloured persons.

**Action Taken** was on the usual lines, viz.: quarantine of cases and susceptible contacts in their homes, exclusion from school of susceptibles who had been exposed to infection and had developed a cough. The lower classes in Brooklyn School and the Convent Schools were closed for short periods on account of outbreaks of this disease.

The impossibility, as a rule, of early diagnosis renders this disease very difficult to control.

**Cerebro-Spinal Meningitis.**—Only seven cases were notified. Of these two were imported and two others had been infected outside the Municipality. The three local cases were a European infant in West End, a European child in Brooklyn and a native in Sunnyside.

There were three deaths from this disease, all Europeans.

There was one case of **Poliomyelitis**—a European child in Good Hope.

There was one case of **Encephalitis Lethargica** in a Eurafican child in the Indian Location.

#### **REPORT OF MEDICAL OFFICER: ANTI-VENEREAL CLINICS, Dr. A. PIJPER, for the YEAR JULY 1st, 1927, to JUNE 30th, 1928.**

(a) **European Clinic.**—The number of new patients seen was 126, of whom 82 were males and 44 were females. Of the males, 42 suffered from gonorrhoea and 40 from syphilis, whilst for the females these figures were 5 and 39 respectively.

The total number of attendances was 784, of which 415 were by males and 369 by females. Most of the patients were adults, and all the children that were seen suffered from congenital syphilis.

During the year 190 bloodtests were performed and 107 microscopic examinations. It still frequently happens that a person only attends once, in order to have the possibility of venereal disease excluded by a special examination.

The total number of salvarsan injections given was 554, of which 248 were given to males and 316 to females.

On the whole the patients attended regularly. During the year 23 patients with syphilis and 15 with gonorrhoea could be discharged as cured. In about an equal num-



ber of cases very good clinical results were obtained, without the disease being completely eradicated.

(b) **Natives and Coloured Persons.**—Altogether 966 new persons were seen, 271 males and 695 females, of which a large proportion were children mostly with congenital but sometimes also with early acquired syphilis.

Gonorrhoea was seen in 37 new male cases, but not in females. All the other new cases, 929 in number, suffered from syphilis.

The total number of attendances was 3,057, of which 877 were by males and 2,180 by females. This brings the number of attendances per patient to somewhere between three and four, which is rather low. It must however be remembered that a considerable proportion of the patients come from outside the Municipality and that such people find it very difficult to attend regularly. A good proportion of the patients attend quite regularly and can be discharged as cured.

Bloodtests during the year numbered 624, and microscopic examinations 20.

The male patients received 621 injections of salvarsan and the females 1,738, making a total of 2,359 injections.

There is an increasing number of persons coming to the clinic to have their blood examined for venereal disease who are found to be free from syphilis. This probably means that the incidence of syphilis amongst the coloured population is decreasing.

### DENTAL CLINIC.

Number of adults treated, 464. Number of children under 16 years treated, 137.

#### RECEIPTS.

Fees ... ..	£121	11	6
Grant-in-Aid, Town Council	150	0	0
	<hr/>		
	£271	11	6

#### EXPENDITURE.

Mechanical Charges and Dental Supplies ... ..	£94	3	10
Salary, Nurse-Secretary ...	180	0	0
	<hr/>		
	£274	3	10

### ISOLATION HOSPITALS.

These Hospitals comprise the Isolation Hospital proper, and the Lazaretto. The former is a brick building of modern construction, and provides accommodation for 26 European patients. The latter is an older building and is capable of accommodating 22 Coloured patients. There are also nurses' quarters, stable, garage, and the other usual outbuildings.

The staff at 30th June, 1928, consisted of a matron, two trained nurses, three probationer nurses, and two European and five Coloured servants.

During the year 106 cases were treated as follows:—

	European	Coloured
Remaining at June 30th, 1927:		
Scarlet Fever ... ..	3	—
Typhoid fever carrier ... ..	—	1
Admitted during year:		
Scarlet Fever ... ..	70	1
Typhoid Fever ... ..	4	—
Typhoid Fever Carriers ... ..	—	4
Measles ... ..	2	—
Erysipelas ... ..	1	—
Influenza ... ..	1	—
Chickenpox ... ..	—	2
Meningococcus Meningitis ... ..	3	—
Tonsillitis and Quinsey ... ..	2	—
Diphtheria ... ..	12	—
Remaining at June 30th, 1928:		
Scarlet Fever ... ..	21	—

Eleven of the cases admitted were from outside districts, namely: two natives with chickenpox from Warmbaths, one European with cerebro-spinal meningitis, three Europeans with scarlet fever, and two Europeans with diphtheria from Brits area. Two Europeans from Innesdale and one from Silverton with diphtheria.

There were four deaths during the year, all in Europeans, two being due to cerebro-spinal meningitis, one to typhoid fever and one to scarlet fever.



## REMOVAL OF CASES OF INFECTIOUS DISEASE, DISINFECTION OF PREMISES, Etc.

During the year the motor ambulance covered a distance of 1,524 miles, and the van used in disinfecting work a distance of 6,204 miles. The Town Council having decided to replace the old ambulance by a more modern vehicle, tenders were invited and an order placed. A new ambulance was placed in commission at the beginning of July, 1928.

**Manufacture of Disinfectant by Clox Plant.**—Some 4,950 gallons of sodium hypochlorate were manufactured during the year, the whole of which was used by Municipal departments.

**Disinfestation of Natives.**—The deverminising of Natives entering Municipal employ is being continued. During the year 742 natives were put through a disinfectant bath whilst their clothing, blankets, etc., were disinfected by steam.

## WATER SUPPLY.

The water supply of Pretoria is derived from springs in the dolomite about three miles south of the town and within the Municipality. There are three intakes, described as Main Intake, New Intake and New Spring. From these the water passes by a three foot aqueduct to the Findlay Reservoir built on the hill south of the Railway Station, and by a branch pipe to a pumping station in the Fountains Valley from which the water is pumped up to a reservoir on Muckleneuk Hill.

From the service reservoirs the water gravitates to all parts of the town.

The Intakes are all protected by chambers built round them and roofed over: the aqueduct is constructed of reinforced concrete pipes: the reservoirs are also constructed of reinforced concrete. The Findlay reservoirs are roofed over whilst the Muckleneuk Reservoir is open.

The capacity of the service reservoirs is as follows: Findlay, six million gallons; Muckleneuk, three million gallons. The original capacity of the Findlay Reservoir was three million gallons. During the year this reservoir was duplicated, the new section being completed in May, 1928.

In addition to the construction of this reservoir the following improvements have been carried out during the year:—

- (1) In order to protect the "New Intake" from contamination by surface and storm water the road passing the Intake has been macadamised, kerbed and guttered, and storm water led off by means of gullies and pipe drains.  
Access of animals, etc., to the adjoining ground has been prevented by erection of a six foot high jackal-proof fence. Storm water furrows here have been paved and concrete lined.
- (2) Water meters have been installed on all premises throughout the town. Altogether 4,921 meters have been installed during the year, and the number of premises now metered is approximately 7,000.

**Quantity of Water.**—The daily flow from the Springs averaged 5,150,000 gallons, of which 4,600,000 is available for the supply of the civil population. This provides over 69 gallons per head of the total population—a fairly ample supply for present requirements. There is, however, a serious scarcity of water every year during the hot dry months of Spring, particularly in September and October, but sometimes extending to an even later period. This arises from the extraordinary demand at that time of year for water for gardening purposes. During the past year serious trouble was caused by failure of water supply to the higher portion of the old town and to the upper floors of buildings in the centre of the town. It is hoped that the metering of all houses will restrict the use of water at this time of year and thus permit of a more equitable distribution.

**Quality of Water.**—The water contains a large quantity of magnesium salts, which give it a high degree of temporary hardness. Bacteriologically it is of very good quality and there has never been the slightest indication of dangerous impurity. The bacilli coli which are sometimes detected in samples are no doubt derived from animal and not from human sources.

**Analyses.**—During the year 172 samples were bacteriologically examined with the following results:—



**Main Intake.**—29 samples, of which 26 were quite satisfactory; two contained *B. coli* in 5 c.c. and one contained *B. coli* in 1 c.c.

**New Spring.**—29 samples, of which 22 were quite satisfactory; four contained *B. coli* in 5 c.c. and three contained *B. coli* in 1 c.c.

**Military Intake.**—15 samples which all proved satisfactory.

**New Intake.**—40 samples, of which 21 proved quite satisfactory; 17 contained *B. coli* in 5 c.c., and two contained *B. coli* in 1 c.c.

**Findlay Reservoir.**—5 samples, of which 4 proved quite satisfactory; 1 contained *B. coli* in 5 c.c.

**Muckleneuk Reservoir.**—8 samples, of which three proved quite satisfactory, whilst four contained *B. coli* in 5 c.c. and one contained *B. coli* in 1 c.c. The contamination here is probably due to the presence of algae and insect life, the reservoir being open.

**Beckett Street Reservoir.**—Two samples, both unsatisfactory, containing *B. coli* in 1 c.c. and in 0.1 c.c. respectively.

**Taps.**—44 samples were obtained from taps in various parts of the town. Many of these were taken because of some reason for suspecting the purity at that particular point, and the results must not be taken as indicative of the general quality of water in the reticulation. Eighteen of these samples were quite satisfactory, ten contained *B. coli* in 5 c.c., and sixteen contained *B. coli* in 1 c.c.

Most of the samples containing *B. coli* in 1 c.c. were drawn from taps in a certain area, viz. Hatfield and the south-eastern portion of Arcadia. The contamination may be derived from the Muckleneuk Reservoir, from which this area is supplied, aggravated by stagnation in the pipes. Here also the contamination was not of a dangerous character.

### MILK SUPPLY.

During the year 65 licensed purveyors of milk carried on business in the town.

The dairy premises from which supplies were obtained numbered 111. Of these 47 were situated within the Municipality, and 64 were outside the municipal boundary. Of the latter 12 were in Innesdale and Daspoort. The others are, with eleven exceptions, within the twenty-mile radius.

**Control of Dairies.**—Routine inspection of all licensed dairies both within and without the Municipality is carried out by the Dairy Inspector. General supervision is exercised by the Medical Officer of Health and Chief Sanitary Inspector. During the year the Dairy Inspector made 2,380 visits to dairy premises.

Following on reports of unsatisfactory conditions found on inspection or on unsatisfactory bacteriological or chemical analyses, 364 notices and letters were addressed to dairymen; 28 prosecutions were instituted and fines amounting to £35 were imposed. Further particulars of these prosecutions are given in the report of the Chief Sanitary Inspector.

**Bacteriological Examinations of Milk.**—The municipal standard allows not more than 200,000 organisms per c.c. and no bacilli coli in .01 c.c. 109 samples were examined with the following result:—50 samples were satisfactory in regard to both total number of organisms and number of *B. coli*. 15 samples were satisfactory as regards total number of organisms, but showed an excess of *B. coli*, usually only just above the standard. 21 samples were satisfactory as regards *B. coli*, but showed an excessive number of organisms. In 23 samples both standards were infringed.

The worst samples, with few exceptions, were those of milk from town depots, or from country dairies as delivered in town. In a number of instances millions of organisms were found in a cubic centimetre and *Bacillus coli* in 1/100,000 of a c.c.

Of the 109 samples 17 contained not more than 10,000 organisms per c.c. and in 11 *B. coli* was not found in less than 5 c.c. These samples came from twelve town dairies, ten country dairies and one Innesdale Dairy.

**Chemical Analysis.**—115 samples were analysed. In twelve instances the amount of fat was below the standard of three per cent. In seven of these cases the deficiency was serious, ranging from 20 to 40 per cent. In 10 instances the amount of non-fatty solids was below the standard of 8.3 per cent., but in only three of these was the deficiency considerable in amount.



**Ice Cream.**—All premises on which ice-cream is manufactured must be registered in accordance with the Municipal Health By-laws. During the year under review there were 23 premises registered under this regulation.

**Bacteriological Analysis** of 35 samples of ice-cream was carried out. 13 of these contained not more than 10,000 organisms per c.c. and no B. coli in .01 c.c. These are regarded as quite satisfactory. 12 samples contained not more than 200,000 organisms per c.c. and no B. coli in 0.001 c.c. These are fairly satisfactory. In the remaining 10 samples organisms ranged from 270,000 to 36,800,000 per c.c. Only two samples contained B. coli in 0.001 c.c. or less. These 10 samples are quite unfit for consumption. Warnings were issued to the sellers of all unsatisfactory samples, and in three cases legal proceedings were instituted and fines to the amount of £6 inflicted.

Regulations regarding ice-cream and prescribing chemical standard of composition were promulgated by the Government (Department of Agriculture) in February 1927. Under these Regulations ice-cream must contain not less than 10 per cent. of milk fat nor less than 16 per cent. of total milk solids. So far these regulations do not appear to have been enforced in Pretoria.

#### Other Foodstuffs:—

**Butter.**—Nine samples were submitted to analysis. Two of these were found to contain foreign fats to the extent of 55 per cent. and 22.6 per cent. respectively. Only three samples were up to the standard in all respects. Two others contained a small excess of water and four contained an excess of curd. Several of these samples were taken owing to the quality of the butter being suspected on account of its appearance or taste. In one instance legal proceedings were instituted against the seller.

**Coffee.**—Six samples were submitted to analysis. Of these two were satisfactory, whilst four proved to be adulterated with chicory, starch and cereal husks.

**Pepper.**—Two samples submitted to analysis. Of these one was pure, and the other adulterated with 75 per cent. maize meal.

**Brawn.**—As the result of certain cases of apparent food poisoning, special enquiry was made into the process of manufacture of brawn in Pretoria, and six samples were submitted for bacteriological examination. Two of these contained no living bacteria. All the other four contained staphylococci and streptococci, whilst one—obtained from the same store as the brawn to which the food poisoning was attributed—contained also a member of the coli group. The process of manufacture at this store was unsatisfactory, permitting contamination by the hands of the workers. At the suggestion of the Medical Officer of Health the method was altered, and a further sample taken a few weeks later proved sterile. The other samples which contained living organisms were not of local manufacture. The attention of the Health authorities in whose districts these are produced has been directed to the matter.

One sample of **Lemonade** and one of **Honey** both proved satisfactory.

#### MEAT SUPPLIES.

The Superintendent Inspector at the Abattoir reports as follows:—

##### Animals Slaughtered:—

	Oxen.	Cows.	Bulls.	Calves.	Sheep.	Goats.	Pigs.
1927-1928 . . . . .	17,282	4,540	212	1,996	73,658	2,047	6,641
1926-1927 . . . . .	17,914	4,489	206	1,970	72,971	2,581	6,723
					1926-1927.	1927-1928.	
Total cattle slaughtered . . . . .					22,609	22,034	
Total sheep and goats slaughtered . . . . .					75,552	75,705	
Total animals slaughtered . . . . .					106,850	106,376	

The above figures show decreased slaughtering in respect of bovines (575) and pigs (82), and an increase of 153 more sheep and goats, giving a total of 474 animals under that of the previous year.

##### Carcasses, Organs, etc., Condemned:—

	Car- casses.	Qrs.	Plucks.	Livers.	Lungs,	Heads.	Other Organs.
Cattle . . . . .	184	5	334	738	356	334	416
Sheep and Goats . . . . .	11	18	753	7,070	3,388	—	20
Pigs . . . . .	425	—	6	—	—	47	87
Calves . . . . .	4	—	—	—	—	—	—



**Imported Meat Examined:—**

Beef.	Sheep.	Pigs.	Pork Loins.	Pork Fillets	Bacon Sides.	Bacon Shoulders.	Polonies. Rolls.	Lbs.
14 sides.	62	655	90	65 lbs.	5	7	3	40

**Imported Meat Condemned:—**

8 pig carcasses for Measles.

1 pig carcase, and 10 heads and tongues for Tuberculosis.

**Diseases:—**

The percentage of animals condemned for all diseases is as follows:—

Cattle.	Sheep and Goats.	Pigs.
0.835	0.001	6.399

**Tuberculosis.**—Amongst **cattle** there were 35 cases, 22 cases being generalised and 13 localised Tuberculosis. The percentage of T.B. in cattle was 0.158. Amongst **pigs** there were 53 cases; there were only 2 cases of generalised Tuberculosis and 51 localised cases. The percentage in pigs was 0.798.

**Measles.**—Amongst **cattle** there were 346 cases, of which number 88 carcasses were condemned and 258 were detained for twelve weeks freezing. The percentage of measles in cattle was 1.570. Amongst pigs there were 422 cases; all were condemned. The percentage was 6.354.

The following is a list of animals condemned for causes stated:—

Emaciation:—4 cows, 6 oxen.

Extensive bruising:—2 oxen, 1 cow, 1 side and 1 quarter of beef.

Septicaemia:—1 ox, 1 cow, 1 sheep.

Hydraemia:—1 cow.

Jaundice:—3 calves and 1 sheep.

Lymphadenitis:—1 sheep, 18 quarters of mutton.

Pyæmia:—3 oxen.

Fever and defective bleeding:—2 sheep.

Moribund:—5 sheep.

Actinomycosis:—There were 16 localised cases, the portions showing lesions only were condemned.

Peritonitis:—There was one primary case.

Butchers' shops were visited at regular intervals to prevent the sale of unstamped meat.

**Bakers and Confectioners:—**

The number of licensed premises remain as last year, namely, 28 in Town and one in Asiatic Bazaar.

The bakeries are all in good structural and flyproof condition, fitted with mechanical dough mixers, dressing room and lavatory accommodation, and all employees are provided with overalls. Early morning street inspections of delivery methods showed generally clean and careful handling of the bread. As yet no bakery has adopted the covering of loaves in sealed paper wrappers, but one bakery has installed machinery for cutting, kneading and moulding, dispensing with hand labour in this respect.

**Butcheries:—**

In Town there are 51 licensed butchers' shops, and 16 in the Asiatic Bazaar and Native Locations. The premises have been well maintained during the year; washing facilities for the employees are provided in each place, and the use of overalls is now general. Early morning inspections of meat deliveries, wrapping, handling and cleanliness of person, were on the whole satisfactory, but it was found necessary to prosecute in two instances where dirty sail coverings of meat waggons were used, and in one case for a dirty receptacle on a bicycle.

**Restaurants, etc.:—**

In Town there are thirteen licensed hotels, thirty-five restaurants, sixty-five tea-rooms, five native eating houses, and two bioscope tea-rooms. In the Asiatic Bazaar and



Native Locations there are two native eating houses, thirty-two tea-rooms, forty grocers, thirty fruiterers, two confectioners and two hundred hawkers and pedlars.

Special attention has been given to the clean handling and storage of foodstuffs in hotels, restaurants and tea-rooms, and to the wearing of clean overalls and personal cleanliness of the native employees. Frequent inspections of the premises are made.

### **Boarding and Lodging Houses:—**

The number of these premises licensed during the year was 204, a considerable increase on last year. Lodging houses, however, now include premises where only a single room is let and account in the main for the increase. The standard of structure and maintenance of these premises is on the whole satisfactory.

### **Laundries:—**

In town there are nine laundries, three of these being conducted by Chinese. In the Asiatic Bazaar nine laundry premises are licensed. These businesses are carried on by Indians and only used for ironing purposes, the washing being done at the Municipal wash-house. Constant inspection and notices are necessary to maintain these premises in a clean condition.

Licences were issued to seventy Coloured and Native people to carry on washing business in the Locations, and five in Town. In the Locations the majority wash at the Municipal wash-house or at the public washing stands.

### **Sewerage and Drainage:—**

4½ miles of sewer and 2/3rd. miles of storm water drains have been laid during the year. The sewers laid were for the most part extensions of the present reticulation, the principal extension being to the Fountains Valley via Groenkloof Brickyards. The surface water drainage was equally distributed in Pretoria East and West.

The water-carriage system of House drainage has been installed in a further 422 dwelling houses and 27 business premises. The total number of premises on the water-carriage system at 30th June, 1928, was 5,739. Some difficulty was experienced during certain months of the year in maintaining adequate flushing of water-closets owing to the inadequacy of the water supply. This is due not to an actual diminution of the water supply of the town, but to the extraordinary demand for water for gardening purposes. It is hoped that the provision of additional service reservoirs, and the metering of private premises, will serve to minimise this difficulty. In the meantime it appears to be advisable to go slowly with further extensions of the water-carriage drainage system.

### **Conservancy System:—**

At the 30th June, 1928, 5,717 stercus removal services were being carried out, 250 of these being daily services and 5,467 alternate day services. The total number of services shows a decrease of 154 on the previous year's total. The number of premises concerned is 3,986, of which 2,620 are in the European suburbs and 1,366 in the Locations. Closets are for the most part built of brick or concrete, and must be in conformity with a standard of construction adopted by the Council. This standard includes the provision of an impermeable floor, guide rails, etc., and also gives directions regarding the height of seat and other details of construction. The service is carried out as follows: The full pail is removed and a clean pail substituted. The contents of pails are emptied into tank wagons which convey the stercus to a specially constructed site where it is discharged into the sewer, together with an adequate quantity of water. The soiled buckets are conveyed in specially constructed waggon to the cleansing station, and are there thoroughly washed and disinfected. The pails in use are of steel and jointless.

### **Refuse Removal Service:—**

The service is compulsory and is carried out either daily or bi-weekly. Householders are obliged to supply covered bins of a type approved by the Council. 175 tons are collected daily. Of this about 155 tons are dumped at various places on the town lands and outskirts of the town. 20 tons are treated at the pulverisor, where the refuse is ground up with a proportion of manure, the product being sold as a fertiliser. The cost of collection is 2/8 per ton.

### **Manure Removal Service:—**

This service is carried out without charge from 86 premises. The amount dealt with was 4,200 tons. The total cost of collection was £1,550, whilst revenue from sale of manure and fertiliser produced at pulverisor was £500. —



### SEWAGE DISPOSAL WORKS.

The Manager (Mr. M. Lundie) reports as follows:—

The following table gives the total volume of sewage and water over the Daspoort Weir. The latter records water from Aapies, Steenhoven and Skinner Spruits, together with the effluent from the Sewage Works. From this table it will be seen that the total volume for the year registered at the weir was 511,409,000 gallons, corresponding to daily averages over the year of 8,954,449 gallons and 1,397,292 gallons respectively.

The maximum monthly flow in both case it will be observed was in January, and the minimum monthly flow also in both cases in June.

Month.	TOTAL.		DAILY AVERAGE.		Average Rate of Filtration p. diem.	
	Daspoort Weir.	Sewage.	Daspoort Weir.	Sewage.	Sq. yd.	Cub. yd.
1927.						
July ... ..	115,795,764	35,334,000	3,735,347	1,139,806	169.7	84.8
August ... ..	96,238,548	43,031,000	3,104,469	1,388,096	206.8	103.4
September ...	83,028,456	46,790,000	2,767,615	1,559,666	232.4	116.2
October ... ..	329,735,456	52,854,000	10,636,627	1,704,970	253.8	126.9
November ...	117,633,000	49,428,000	3,921,100	1,647,600	245.2	122.6
December ...	187,441,700	46,266,000	6,111,022	1,492,451	254.0	126.0
1928.						
January ... ..	1,247,534,400	58,193,000	40,243,045	1,877,193	279.2	139.6
February ...	365,165,220	50,171,000	12,591,904	1,726,595	257.2	128.6
March ... ..	360,198,000	46,724,000	11,619,290	1,507,222	224.4	112.2
April ... ..	179,536,140	30,364,000	5,984,538	1,012,133	149.2	74.6
May ... ..	120,707,496	26,934,000	3,893,790	868,838	129.2	64.6
June ... ..	74,214,252	25,320,000	2,473,808	844,000	125.4	62.7
Yearly Total ...	3,277,328,432	511,409,000	—	—	—	—
Daily Average ...	—	—	8,954,449	1,397,292	208.1	104.0

The Maximum daily flow of sewage was 2,650,000 on 13th January.

The Minimum daily flow of sewage was 584,000 on 20th June.

The Maximum daily flow at Daspoort Weir was 914,971,600 on 13th January.

The Minimum daily flow at Daspoort Weir was 1,860,800 on 29th June.

The total filter area is 6,712 square yards.

Therefore the maximum daily rate of filtration becomes 394.8 gallons per sq. yard.

And the minimum daily rate of filtration becomes 86.8 gallons per sq. yard.

### RATIO OF DILUTION OF EFFLUENT TO STREAM WATER AT DASPOORT WEIR:—

The maximum monthly ratio of dilution of effluent to stream water was 1 to 20.4 in January.

The minimum monthly ratio was 1 to 1.8 in June.

The mean ratio of dilution for the year was 1 to 5.3.

### RAINFALL:

Total of 30.97 inches made up as follows:—

1927.

July ... .. 1.23 inches.

August ... .. 0.05 „

September ... 0.16 „

October ... .. 5.89 „

November ... 1.07 „

December ... 3.48 „

1928.

January ... .. 11.28 inches.

February ... 3.64 „

March ... .. 2.62 „

April ... .. 1.45 „

May ... .. 0.08 „

June ... .. 0.02 „

The heaviest fall was 7.69 inches in six hours on January 13th.

Heavy floods did very considerable damage.

ANALYTICAL RESULTS:

The following table gives the maximum, minimum and mean figures of analytical determinations made during the year:—											
Parts per 100,000.		Sewage before sedimentation.		Sewage after sedimentation.		Final Effluent.		Purifica-			
		Max.	Min.	Mean.	Max.	Min.	Mean.	tion	per cent.		
Suspended Solids	...	113.6	55.2	84.5	30.8	11.2	17.0	2.4	5.0	94.0	
Free and Saline Ammonia as Nitrogen	...	13.0	6.0	10.0	4.4	2.0	3.36	0.52	0.62	93.8	
Albumenoid Ammonia as Nitrogen	...	4.8	1.6	3.32	1.1	0.4	0.72	0.17	0.25	92.5	
Nitrous Nitrogen	...	nil	nil	nil	nil	nil	nil	0.05	0.08	—	
Nitric Nitrogen	...	nil	nil	nil	nil	nil	nil	0.96	2.19	—	
Chlorine	...	16.2	10.0	12.3	14.0	6.2	9.52	6.2	9.1	—	
Oxygen consumed from Permanganate:											
in 3 minutes	...	7.0	5.3	6.2	2.1	1.3	1.84	0.32	0.60	90.3	
in 4 hours	...	17.8	13.7	16.16	5.4	3.4	4.75	1.1	1.54	90.4	
Dissolved Oxygen absorbed in 5 days at											
18.3oC.	...	85.0	41.0	66.0	27.36	12.16	19.14	2.29	3.34	95.0	
Incubator Test	...	FAILS				FAILS		PASSES.			



The last three analytical determinations in the above table for final effluent free of suspended solids gave the following mean figures: 0.31, 0.78 and 0.98 respectively, corresponding to a percentage purification of 95.0, 95.2 and 98.5 respectively. Expressed otherwise, this means that by the introduction of efficient humus tanks the filter bed effluent can be further purified to the extent of 48.3, 49.3 and 70.6 per cent. calculated on the three analytical determinations referred to above.

The analytical figures show that a well oxidised and stable effluent is being produced from a concentrated domestic sewage. The final effluent still shows a comparatively high figure for suspended solids. During the latter half of the year Abattoir sludge has been disposed of elsewhere resulting in a decrease in this figure for the year under review.

**Plant.**—Daily routine attention has been given to the following: screens, detritus channels, sedimentation tanks, automatic supply tanks, valves, recorders, sprinklers, haulage gear, etc., to ensure efficient and smooth running of the plant.

**Farm.**—Labour has been expended on the manifold operations associated with the sewage disposal works and plant and the intensive system of farming operations in vogue.

#### EXPENDITURE and REVENUE:—

Expenditure on Sewage Works and Farm ... ..	£4,422	3	8
Revenue from Sales of Farm Produce ... ..	£1,765	8	1

A noticeable increase in expenditure is noted. This was from capital expenditure for implements, and damage done by floods. The very unfavourable season resulted in a drop in revenue. Owing to the low-lying nature of the farm lands sixty per cent. of the crops were drowned after the January floods.

**Cost of Disposal.**—The nett cost of disposal works out to 9.6 pence per capita per annum.

**Analyses.**—The total number of samples analysed in the laboratory amounted to 189, comprising sewages, effluents, waters, milks, fruit drinks, butter, coffee, pepper, and tallow.

#### ANTI-RAT MEASURES.

##### Work carried out for Year ended 30th June, 1928.

New impervious floors laid in grain, flour, forage and other stores ... ..	16
Floors repaired or walls or roofs made ratproof in flour, grain or forage stores	46
Non-ratproof grain, forage or other stores disused ... ..	17
Non-ratproof grain, forage or other stores demolished ... ..	31
Accumulations of rubbish or lumber likely to harbour rats cleaned up or removed ... ..	231
European dwellinghouses: Foundations repaired, floor gratings replaced or rat holes stopped ... ..	147
Native rooms: floors relaid or repaired ... ..	43
Ratproof animal food bins provided at private stables, etc. ... ..	10
Premises inspected or re-inspected and advice given where necessary ... ..	1,589
Notices or intimations to owners or occupiers of premises to use traps or poison	189
Approximate number of rats destroyed in private premises (excluding Government properties) ... ..	1,320
Number of rats trapped or killed on Municipal properties and Town Lands ...	3,881
Poison baits set on Town Lands ... ..	16,479
Number of baits taken ... ..	4,996
Ratholes on Town Lands, etc., gassed ... ..	1,711
Number of animals found under suspicious circumstances and examined by Bacteriologist ... ..	—
Number of prosecutions for failure to comply with Regulations ... ..	1

#### HOUSING.

In accordance with Section 131 of the Public Health Act 1919, the following special report on "overcrowding and bad or insufficient housing" is submitted.

##### European Housing:

No case of overcrowding as legally defined was discovered during the year.

The number of European dwellings in Pretoria is now approximately 6,800. This is 1,400 more than existed at the time of the 1921 Census. Whereas the average number of Europeans per house in 1921 was 6.4 it is now 6.29. At the time of writing there are 450 empty houses in the town. Speaking generally therefore there is no shortage of



houses. But in spite of this there is still an inadequate supply of small cottages available at a rental (e.g. £3 per month) within the reach of the unskilled labourer earning £10-£15 a month.

### Houses Closed by Magistrate's Order:

Fifteen houses were closed by Magistrate's Order during the year. These houses contained 48 rooms, 13 kitchens and 4 native rooms. Seven of the premises were in Good Hope and the others in different parts of the town. Eight rooms and 3 kitchens have been demolished. Eight rooms and 3 kitchens are still occupied. Some of these have been repaired. The other rooms are now vacant.

### Erection of New Dwellinghouses:

366 Dwellinghouses were completed during the year. These comprise:

Houses of 3 rooms or less (exclusive of kitchen) . . . . .	180	} 302
Houses of 4 rooms . . . . .	122	
Houses of 5 rooms . . . . .	36	} 64
Houses of 6 rooms . . . . .	17	
Houses of 7 rooms . . . . .	3	
Houses of 8 rooms or more . . . . .	8	

The number of small houses—4 rooms or less—is considerably greater than in the previous year, whilst there is a drop in the figures for larger houses. The category of houses of more than 8 rooms includes several blocks of flats. In addition to dwelling houses 580 other premises were erected.

The various new buildings and erections were in the following districts:—

District.	Buildings.
Pretoria Central ... ..	260
Pretoria West ... ..	172
Sunnyside ... ..	177
Arcadia ... ..	147
Hatfield ... ..	88
New Muckleneuk ... ..	8
Riviera ... ..	36
Brooklyn ... ..	41
Roberts Heights ... ..	17

Under the Municipal Loan Scheme 11 houses were erected during the year at a cost of £12,000. These were under the individual loan scheme. Eight houses were built by the Council in Pretoria West at a cost of approximately £7,000. These houses are being disposed of on the hire purchase system.

## Locations and Housing of Coloured Persons.

In 1921, when the last Census of the Coloured population was taken, the figures were: Natives 19,361, Asiatic 1,671 and other Coloured 1,804, giving a total Coloured population of 22,836. There appears to be no grounds for thinking that any natural increase has taken place and the total Coloured population is now estimated to be 23,000.

### Accommodation for Coloured People.

During the year a Municipal Hostel to accommodate 480 male natives has been built, and was opened for occupation on the 9th June. At the time of writing this report there are 200 natives in residence at the Hostel. A charge of seven shillings and sixpence per month is made for accommodation and supervision. In most cases the charges are paid by the employers. In the Marabastad Location 19 new houses have been erected, and 14 houses have been reconstructed, the work being done by the Natives themselves. In this way good wood and iron buildings have taken the place of old, dilapidated shacks. The re-erection of houses in Schoolplaats is not allowed, as it is the policy of the Council to discontinue the use of this area as a location at an early date.

**Urban Areas Act.**—The completion of the hostel has made it possible to apply the provisions of this act to unexempted natives living in the European quarters of the town. 270 Notices were served on employers of natives in the Central Areas to cease housing unexempted natives. The total number of Natives concerned was 900. Of this number 253 have since then been exempted on account of their work being of such a nature as to require their presence on their employers' premises at night. The others have found accommodation either in the hostel, in the location or outside the Municipal area. In addition to the Hostel for males, there are two small hostels for females, conducted by the Civic Society and the Church of England respectively. These accommodate 150 girls.



### Houses in Locations Closed and Demolished.

**Marabastad.**—The total number of houses in this location is 390. Sixty rooms and 3 kitchens were closed by Magistrate's Order.

**Schoolplaats.**—Total number of houses, 48. Twenty-two rooms and four kitchens were closed by Magistrate's Order.

**Bantule.**—There are 246 Municipal brick and concrete houses here of 2 rooms and 3 rooms let at rentals of £1 5/- and £1 15/- per month respectively. There are also 145 privately owned wood and iron houses.

**Cape Location.**—Total number of houses 168, of which 20 concrete houses belong to the Municipality and are let at rentals of £2 10/- per month. In addition to the Cape people there are still about 300 Natives living in this Location and in the Asiatic Bazaar.

Closing Orders for two houses, comprising 12 rooms and 3 kitchens were issued. One house was demolished and the other has been reconstructed.

**Asiatic Bazaar.**—Number of houses is approximately 350. During the year 26 new buildings were erected having a value of £12,540, and additions were made to 12 buildings.

Closing Orders were obtained for 20 rooms and 20 kitchens. Of these 16 rooms and 14 kitchens have been or are being demolished. The others are being repaired or reconstructed.

Demolition Orders were also obtained for 2 shops, 14 rooms and 8 kitchens.

The sanitary conditions in all the locations are slowly but steadily improving. The extension of water-carriage drainage to the whole of the Indian Location is urgently required. A few decent roads should be made in all the locations and greater attention should be paid to scavenging.

There is a great tendency to overcrowding of dwellings owing to the practice of sub-letting. The chief reason for this is the great difficulty which the Native at least experiences in paying the economic rent which is demanded from him or the inadequate wages which he receives.

Natives employed in urban areas who do not receive housing and food as part of their wages should be paid a wage on which it is possible to maintain a family. But this is far from being the case to-day.

### WORK DONE BY SANITARY INSPECTORS FOR YEAR ENDED 30th JUNE, 1928.

The work carried out by the Sanitary Inspectors is detailed in the following figures:—

Total inspections made ... ..	44,624
House-to-House inspections ... ..	14,425
Early morning inspections ... ..	755
Night inspections ... ..	308
Infectious disease visits ... ..	4,464
Inspections of special businesses and trades ... ..	12,744
Complaints received ... ..	1,034
Nuisances dealt with ... ..	7,382
Nuisances abated ... ..	7,241
Written notices issued for abatement of nuisances ... ..	3,037
Verbal intimations given for abatement of nuisances ... ..	4,500
Notices served for removal of noxious weeds ... ..	121
Samples of foodstuffs taken for analyses ... ..	285
Samples of water taken for analyses ... ..	185

#### Special Inspections:

Morning Market ... ..	Daily.
Butchers' shops ... ..	1,026
Fishmongers' shops ... ..	186
Hotels, restaurants, etc. ... ..	1,697
Bakehouses ... ..	333
Dairies ... ..	2,308
Cow and other stables ... ..	2,651
Fruit and other food stores ... ..	2,284
Laundries and washing places ... ..	300
Mineral water and ice-cream factories ... ..	136

Kaffir eating houses ... ..	153
Hairdressers' saloons ... ..	229
Miscellaneous ... ..	1,441
Applications for licences approved—new ... ..	403
Applications for licences approved—renewals ... ..	1,673
Applications for licences refused . ... ..	32

**Disinfections, etc.:—**

Patients removed to Hospital . ... ..	83
Houses disinfected ... ..	332
Steam disinfections ... ..	291
Natives disinfested ... ..	742

**Articles Disinfected by Steam:—**

Mattresses ... ..	410
Pillows ... ..	713
Blankets ... ..	666
Sheets ... ..	213
Miscellaneous ... ..	2,709

**Matters referred to other Departments:****A. Town Engineer.**

Absence of caps on inspection eyes ... ..	27
Accumulations of rubbish on streets and municipal properties ... ..	11
Buildings erected or altered without permission ... ..	97
Buildings occupied before completion and without authority ... ..	11
Buildings in dangerous condition ... ..	12
Broken and missing gratings on U.T's. ... ..	36
Broken manhole covers ... ..	3
Broken and defective gully traps . ... ..	4
Broken and leaky water taps ... ..	149
Broken and leaky stopcocks ... ..	17
Broken W.C. basins ... ..	11
Broken or missing covers on grease traps ... ..	3
Broken coverings on furrows ... ..	3
Broken dishing round drain gullies ... ..	23
Baths, sinks, etc., not connected to sewerage ... ..	5
Choked drains ... ..	69
Choked W.Cs. ... ..	20
Defective condition of Municipal Native quarters ... ..	5
Defective condition of Municipal latrines ... ..	9
Defective condition of Municipal Native eating house ... ..	2
Defective W.C. and urinal flush cisterns ... ..	233
Defective bath and sink waste pipes ... ..	32
Defective ventilating pipes ... ..	16
Defective and dirty street furrows ... ..	30
Defective and untrapped drains . ... ..	3
Defective bath and sink connections ... ..	6
Defective construction of new buildings ... ..	2
Dangerous footbridges (Municipal)... ..	2
Dangerous chimneys ... ..	2
Dangerous holes in footpaths ... ..	4
Drain pipes left unsealed ... ..	2
Dead animals on streets, etc. ... ..	37
Foul condition of Station Square ... ..	2
Growth of noxious weeds on streets and Municipal properties ... ..	26
Holes on Race-course and Belgrave Square containing water and breeding mosquitos ... ..	4
Leaky water cisterns, valves or meters ... ..	5
Leaky water pipes ... ..	43
Leaky hydrants ... ..	9
Manure or rubbish removal services not satisfactorily carried out... ..	6
Non-ratproof condition of Municipal forage stores ... ..	3
Sanitary buckets left on sewered premises ... ..	3
Street surface water flooding private premises ... ..	2
Streets insufficiently scavenged ... ..	2
Water stagnating on streets ... ..	4



**B. Licence Inspector.**

Unlicensed cowkeepers ... ..	30
Unlicensed kaffir eating houses ... ..	2
Unlicensed tea-rooms ... ..	5
Unlicensed lodginghouses ... ..	19
Unlicensed goatkeepers ... ..	9
Unlicensed boardinghouses ... ..	2
Unlicensed—various ... ..	9

**C. Tramways Manager.**

Foul condition of conveniences at tram sheds and shelter ... ..	2
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**D. Chief Officer: Fire Brigade.**

Dangerous accumulations of inflammable material ... ..	4
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**E. Location Superintendent.**

Growth of noxious weeds on streets ... ..	1
Foul condition of latrines on Bantule Sports Grounds ... ..	1
Buildings altered without permission ... ..	4

**Foodstuffs Condemned:—**

1 Case Bacon.	70 Boxes Tomatoes.
3 Cases Macaroni.	4 „ Pawpaws.
41 „ Pears.	21 „ Mangoes.
27 „ Oranges.	11 „ Apples.
13 „ Loquats.	92 „ Peaches.
3 Bags Madumbies.	2 „ Plums.
1 „ Apples.	5 „ Avocado Pears.
42 „ Oranges.	20 „ Kippers.
2 „ Cucumbers.	4 lbs. Butter.
25 „ Rice.	2,455 „ Fish—fresh.
11 „ Lemons.	1½ „ Sweets.
15 „ Potatoes.	20 „ Meat.
1 „ Cabbage.	4 Hampers Oranges.
4 „ Marrows.	8 Barrels Bananas.
132 tins Jam.	2 Buck.
175 „ Milk.	26 Guinea Fowl.
68 „ Kraut.	2 Partridges.
297 „ Meat (Assorted).	20 Fresh Water Fish.
37 „ Oxo.	1,085 tins Fish (assorted).
21 „ Vienna Sausages.	1 tin Lard.

**PROSECUTIONS.**

The following cases were taken before the Magistrate:—

Offence.	No. of Cases.	No. of Convictions.	No. Discharged.	Total Fines Imposed.
<b>Contraventions of Dairy By-laws:</b>				
Sale of milk not up to bacterial standard	12	12	—	£30 10 0
Sale of milk not up to chemical standard	3	3	—	2 0 0
Absence of overalls for native employees and dirty condition of clothing, etc.	2	2	—	4 10 0
Non-use of overalls provided by employer	15	15	—	7 5 0
Native carrying bottles of milk in coat pocket ... ..	1	1	—	15 0
Transferring milk from one receptacle to another on street ... ..	5	5	—	14 0 0
Keeping cow in unsuitable premises after refusal of licence ... ..	1	1	—	10 0
Dirty condition of cowshed, etc. ... ..	1	1	—	3 10 0
Non-cleansing of milk receptacles, etc., before use ... ..	1	—	1	—
Sale of milk containing visible dirt ... ..	1	1	—	3 0 0
Obstructing Inspector in course of his duties ... ..	1	1	—	1 0 0
<b>Contraventions of Butchery By-laws:</b>				
Dirty condition of sail covering of meat waggon ... ..	2	2	—	3 10 0
Use of dirty receptacle for conveying meat ... ..	1	1	—	4 0 0
<b>General:</b>				
Housing of unexempted Natives (Urban Areas Act), etc. ... ..	4	4	—	3 10 0
Dirty condition of yards, stables, drains, etc. ... ..	12	12	—	21 10 0
Disrepair and dirty condition of premises	5	5	—	8 5 0
Burning bricks without licence and causing nuisance ... ..	1	1	—	1 0 0
Failure to comply with Notice to instal sewerage ... ..	1	1	—	1 0 0
Failure to notify case of infectious disease	1	1	—	1 0 0
Failure to abate nuisance existing after previous conviction for same offence	1	1	—	5 0 0
Selling or exposing for sale unsound food-stuffs ... ..	9	9	—	24 0 0
Sale of adulterated pepper ... ..	1	1	—	2 0 0
Sale of adulterated butter ... ..	1	1	—	1 0 0
Sale of adulterated coffee ... ..	6	6	—	22 0 0
Sale of ice-cream not up to bacterial standard ... ..	3	3	—	6 0 0
Refusing to sell ice-cream for purpose of analysis ... ..	1	1	—	—
Hawking meat without licence ... ..	1	1	—	1 0 0
Failure to make premises ratproof ... ..	1	1	—	1 0 0
Failure to provide proper drainage ... ..	3	3	—	9 0 0
Carrying on washing business outside Municipal Wash-house ... ..	7	7	—	1 15 0
	104	103	1	£183 10 0



BIRTHS: ALL RACES: in the Municipality for the Year ended June 30th, 1928.

Table No. 1.

	EUROPEAN.				NATIVE.				EURAFRICAN.				ASIATIC.			
	Legitimate.		Illegitimate.		Legitimate.		Illegitimate.		Legitimate.		Illegitimate.		Legitimate.		Illegitimate.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1927 July ... ..	48	33	2	2	4	5	2	8	1	3	2	3	5	3	—	—
August ... ..	41	26	2	3	7	4	5	6	1	—	2	1	3	1	—	1
September ... ..	47	42	6	4	8	6	7	6	4	2	4	4	5	1	—	—
October ... ..	41	31	2	2	8	9	7	4	4	—	2	3	3	3	—	1
November ... ..	46	55	—	2	10	4	2	5	3	2	5	6	1	7	—	—
December ... ..	51	36	2	2	9	6	2	4	1	5	—	1	2	8	—	—
1928 January ... ..	30	40	—	2	7	10	5	2	—	1	—	2	2	4	—	—
February ... ..	31	38	3	1	12	6	5	4	2	3	—	—	3	3	—	—
March ... ..	50	44	2	6	11	9	4	3	2	3	2	2	3	3	—	—
April ... ..	29	37	1	1	4	2	3	6	3	1	—	1	2	3	—	—
May ... ..	32	46	3	2	4	6	5	7	3	2	2	1	3	9	—	—
June ... ..	36	33	—	2	6	7	2	5	3	1	1	3	2	3	—	—
Total ... ..	482	461	23	29	90	74	49	60	27	23	21	27	34	48	—	2

STILLBIRTHS, AND BIRTHS TO Non-Residents: All Races: in the Municipality for the Year ended June 30th, 1928.

	STILLBIRTHS.				BIRTHS TO NON-RESIDENTS.			
	European.		All Coloured.		European.		All Coloured.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1927 July ... ..	2	3	3	1	6	6	—	—
August ... ..	2	—	5	2	3	7	—	—
September ... ..	1	3	1	1	13	12	2	—
October ... ..	—	—	—	1	8	8	1	2
November ... ..	—	—	3	2	6	9	1	1
December ... ..	—	—	2	1	6	9	1	—
1928 January ... ..	—	1	2	1	7	5	—	—
February ... ..	—	—	2	—	12	4	1	—
March ... ..	1	1	—	3	3	4	—	1
April ... ..	3	—	5	—	4	7	1	—
May ... ..	—	1	4	2	16	12	2	—
June ... ..	2	2	1	—	9	4	1	—
Totals ... ..	11	11	28	14	93	87	10	4

Table No. 2.

DEATHS of EUROPEAN CHILDREN under 5 years of age within the MUNICIPALITY for the Year ended June 30th, 1928.

	0--1		1--2		2--3		3--4		4--5		5--6		6--7		7--8		8--9		9--10		10--11		11--12		Total under 1--5		Total under 5 years.			
	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	
Measles ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2	1	2	1	
Scarlet fever ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2	—	
Whooping cough ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	1	
Influenza ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Meningococcal meningitis ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Encephalitis ... ..	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Convulsions ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Myo-endocarditis ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Bronchitis ... ..	1	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Broncho pneumonia ... ..	2	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Pneumonia ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Diarrhoea and Enteritis ... ..	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Congenital debility ... ..	4	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Premature birth ... ..	10	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Accident ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Homicide ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Marasmus ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	17	10	1	1	3	3	3	3	4	2	—	1	2	3	1	1	1	1	2	1	2	1	—	1	36	25	18	9	54	34



INFANTILE MORTALITY: EUROPEANS: CAUSATION AND INCIDENCE IN DISTRICTS FOR THE YEAR ENDED JUNE 30th, 1928.

	Zymotic diseases.		Diarrhoeal diseases.		Bronchitis. Pneumonia.		Congenital Causes.		Meningitis.		Convulsions.		Marasmus.		Other diseases.		Total deaths.		Total births.		Mortality rate per 1,000 births.		Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Males.	Females.	
North West Central	—	2	3	1	2	—	—	4	—	—	—	—	—	—	—	—	5	7	57	44	87.72	159.09	118.81
South West Central	—	—	—	1	1	—	—	1	—	—	—	—	—	—	—	—	4	2	48	48	83.33	41.66	62.50
North East Central	—	—	—	—	—	1	—	—	—	—	—	—	1	—	—	—	2	1	55	44	36.36	22.74	30.30
South East Central	—	—	1	1	—	—	2	—	—	—	—	—	—	—	—	—	3	1	39	38	76.92	26.31	51.94
Good Hope	—	—	—	1	2	—	3	3	—	—	—	—	—	—	—	—	5	4	27	24	185.18	166.66	176.47
Pretoria West	—	—	5	3	—	1	2	1	—	1	—	—	—	—	—	—	7	6	78	100	89.74	60.00	73.03
Defence and Prison Reserves	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7	9	—	—	—
Railway Reserve	—	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—	1	1	17	19	58.82	52.63	55.55
Sunnyside	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	2	—	60	59	33.33	—	16.80
Arcadia	—	—	1	1	—	—	1	—	—	—	—	—	—	—	—	—	2	1	43	35	46.51	28.57	38.46
Riviera and Rietendale	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12	13	—	—	—
Hatfield	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1	—	20	20	50.00	—	25.00
Brooklyn and Hillcrest	1	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	2	1	14	12	142.85	83.33	115.34
New M'neuk and Groenkloof	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	1	—	7	4	142.85	—	90.90
Roberts Heights	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	1	21	21	47.61	47.61	47.62
	1	2	11	8	6	3	16	11	—	1	—	—	1	—	1	—	36	25	505	490	71.28	51.02	61.30







Table No. 5.

DEATHS OF NATIVES WITHIN THE MUNICIPALITY FOR THE YEAR ENDED JUNE 30th, 1928.

Age Incidence.

	0—1		—5		—10		—15		—20		—25		—35		—45		—55		—65		—75		over 75		Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Typhoid Fever ... ..	—	—	—	—	—	—	1	—	—	—	2	—	2	—	—	—	—	—	—	—	—	—	—	—	5
Malaria ... ..	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Measles ... ..	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Whooping Cough ... ..	1	2	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4
Influenza ... ..	—	—	1	1	—	—	—	—	1	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	4
Dysentery ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1
Trismus neonatorum ... ..	3	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Tuberculosis ... ..	—	—	2	—	—	—	—	1	—	—	1	—	2	4	4	3	1	—	—	—	—	—	—	—	9
Syphilis ... ..	—	2	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Purulent infection ... ..	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	2
Cancer ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	—	—	—	—	—	1
Rheumatic fever ... ..	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Rheumatism ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	1
Leukaemia ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Meningitis ... ..	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Cerebral haemorrhage ... ..	—	—	—	—	—	—	—	—	—	—	—	—	2	—	1	—	—	—	—	—	—	—	—	—	4
Paralysis of the insane ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1
Epilepsy ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Pericarditis ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Diseases of the heart ... ..	—	—	—	—	—	—	—	—	1	—	—	—	1	1	2	1	6	1	—	1	—	—	—	—	10





DEATHS OF COLOURED PERSONS other than Natives and Asiatics for the Year ended June 30th, 1928.

Age Incidence:

	0—1		—5		—10		—15		—20		—25		—35		—45		—55		—65		—75		over 75		Total.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Males.	Females.
Malaria ... ..	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	—
Whooping cough ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Influenza ... ..	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Trismus neonatorum ... ..	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Tuberculosis ... ..	—	—	—	—	—	—	—	—	1	—	—	—	—	—	2	—	—	1	—	—	—	1	—	—	—	1
Tubercular meningitis ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Cancer ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	2	—	—	—	—	—	1
Angina pectoris ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Diseases of the heart ... ..	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Bronchitis ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	5
Broncho pneumonia ... ..	3	1	2	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Pneumonia ... ..	2	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	5
Congestion of lungs ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4
Diarrhoea and Enteritis ... ..	2	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Intestinal obstruction ... ..	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Malignant jaundice ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Nephritis ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Congenital debility ... ..	4	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Premature birth ... ..	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4
Accident ... ..	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Totals	12	4	4	5	9	—	2	—	—	4	—	1	1	1	1	2	1	3	2	2	3	2	—	2	31	28



DEATHS OF ASIATICS within the Municipality for the Year ended June 30th, 1928.

	Age Incidence.																Total.										
	0-1		-5		10		-15		-20		-25		-35		-45			-55		-65		-75		over 75		Males.	Females.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		M.	F.	M.	F.	M.	F.	M.	F.		
Whooping cough ... ..	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	
Influenza ... ..	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	
Tuberculosis ... ..	—	—	—	—	—	—	—	—	—	—	1	3	—	—	—	—	—	—	—	—	—	—	—	—	1	3	
Cerebral haemorrhage ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	
Diseases of the heart ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	
Bronchitis ... ..	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7	—	
Broncho pneumonia ... ..	1	3	2	1	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	1	
Pneumonia ... ..	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	1	
Asthma ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	
Diarrhoea and Enteritis ... ..	2	3	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	4	
Disease of the liver ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	
Chronic nephritis ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	
Puerperal septicaemia ... ..	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
Old age ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	
Accident: Scalding ... ..	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
Homicide ... ..	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	
Totals	8	6	5	4	1	1	—	—	—	2	1	3	—	—	—	1	—	5	—	4	—	2	—	3	2	30	18

Table No. 8.

**INFANTILE MORTALITY: All Coloured Races: District Incidence for the Year ended June 30th, 1928.**

	Zymotic diseases.				Diarrhoeal diseases.				Bronchitis-Pneumonia.				Congenital causes.				Meningitis.		Marasmus.		Other causes.		Total deaths.		Total births.		Mortality rate per 1,000 births.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Males	Females.	Total	
<b>Natives:</b>																												
Marabastad . . .	—	—	10	7	15	13	6	4	—	—	—	—	—	—	1	1	32	25	56	52	571.43	480.77	527.77					
Schoolplaats . . .	—	—	1	6	1	4	3	2	—	—	—	—	—	—	2	—	7	12	20	21	350.00	571.43	463.41					
Bantule . . .	1	2	13	6	2	9	2	6	1	—	—	—	—	—	1	—	20	23	48	50	416.66	460.00	438.77					
Town . . .	—	—	2	—	1	2	4	3	—	—	—	—	—	—	—	1	7	6	15	11	466.66	545.45	500.00					
Total: Natives	1	2	26	19	19	28	15	15	1	—	—	—	—	—	4	2	66	66	139	134	474.82	492.53	483.51					
<b>S.A. Coloured:</b>																												
Locations . . .	—	—	1	—	4	1	3	1	—	—	—	—	—	—	—	2	8	4	41	40	195.12	100.00	148.14					
Town . . .	—	—	1	—	1	—	2	—	—	—	—	—	—	—	—	—	4	—	7	10	571.43	—	235.29					
Total:																												
S.A. Coloured	—	—	2	—	5	1	5	1	—	—	—	—	—	—	—	2	12	4	48	50	250.00	80.00	163.26					
<b>Asiatics:</b>																												
Locations . . .	2	—	2	3	3	3	—	—	—	—	—	—	—	—	1	—	8	6	25	36	320.00	166.67	229.51					
Town . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9	14	—	—	—					
Total: Asiatics:	2	—	2	3	3	3	—	—	—	—	—	—	—	—	1	—	8	6	34	50	235.29	120.00	166.67					
<b>All Coloured:</b>																												
Locations . . .	3	2	27	22	25	30	14	13	1	—	—	—	—	—	5	3	75	70	190	199	394.73	351.76	372.75					
Town . . .	—	—	3	—	2	2	6	3	—	—	—	—	—	—	—	1	11	6	31	35	354.84	171.43	257.57					
Total:																												
All Coloured	3	2	30	22	27	32	20	16	1	—	—	—	—	—	5	4	86	76	221	234	389.14	324.78	356.04					



DEATHS in the Various Institutions in Pretoria for the Year ended June 30th, 1928.

Age Incidence.

		0—1		—5		—10		—15		—20		—25		—35		—45		—55		—65		—75		over 75		Total		Total		Total		
		years.		years.		years.		years.		years.		years.		years.		years.		years.		years.		years.		years.		years.		European.		Coloured.		
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
General and Private Hospitals.	European	10	9	4	4	3	2	4	2	7	3	4	10	10	6	14	2	10	2	5	2	—	—	74	44	—	—	—	—	—	—	
	Coloured	3	—	2	2	—	1	3	1	8	3	6	1	15	3	14	—	8	—	1	—	—	—	—	—	—	—	—	62	13	—	—
Mental Hospital.	European	—	—	—	—	—	—	—	—	—	—	—	—	2	2	11	4	7	5	7	5	9	8	5	5	41	30	—	—	—	—	
	Coloured	—	—	—	—	1	1	2	—	1	1	4	5	9	1	3	2	1	3	2	—	—	—	1	—	—	—	—	24	14	—	—
Leprosy Institution.	European	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	2	—	—	—	—	1	—	3	2	—	—	—	—	
	Coloured	—	—	—	—	—	—	3	2	3	1	5	4	5	2	5	2	2	1	6	2	—	—	—	—	—	—	—	—	29	14	—
Prisons.	European	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—
	Coloured	—	—	—	—	—	—	—	—	—	—	2	—	6	—	7	—	4	—	1	—	—	—	—	—	—	—	—	20	—	—	—
Visitors.	European	2	1	—	—	—	—	—	—	—	—	—	—	—	—	2	—	1	1	1	1	1	1	—	—	8	4	—	—	—	—	
	Coloured	1	1	—	1	—	1	—	—	—	—	1	1	1	1	3	—	—	—	2	—	1	—	—	—	—	—	—	10	4	—	—
Total.	European	12	10	4	4	3	3	2	4	3	3	7	3	8	13	24	10	23	7	20	8	15	11	5	6	128	80	—	—	—	—	
	Coloured	4	1	2	3	3	3	2	8	3	3	15	6	22	11	39	6	26	4	14	4	10	2	1	—	—	—	—	145	45	—	—





NOTIFICATIONS OF INFECTIOUS DISEASES—EUROPEANS—for the Year ended June 30th, 1928.  
Age Incidence.

	0—1		—5		—10		—15		—20		—25		—35		—45		—55		—65		—75		over 75		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Males.	Females.	
Typhoid fever ... ..	—	—	3	3	7	4	5	3	4	4	2	5	2	3	—	—	1	2	—	2	—	—	—	—	24	26	
Malaria ... ..	—	—	1	3	3	4	6	5	5	3	10	6	7	8	8	4	7	4	—	—	—	1	—	48	37		
Scarlet fever ... ..	—	—	23	19	45	60	10	12	3	6	—	2	1	2	2	—	2	1	—	—	—	—	—	86	102		
Diphtheria ... ..	—	—	4	4	5	7	1	—	1	—	—	1	—	1	—	—	—	—	—	—	1	—	—	11	14		
Measles ... ..	3	12	42	52	169	133	48	32	8	9	14	10	2	3	—	1	—	—	—	—	—	—	—	286	252		
Whooping cough ... ..	10	9	45	53	81	77	5	6	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	143	145		
Tuberculosis ... ..	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	1	—	—	2	—	—	—	—	5	1		
Polionmyelitis ... ..	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	
Meningococcal meningitis ...	—	1	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2	2	
Puerperal fever ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	2	2
Erysipelas ... ..	—	—	—	1	—	—	1	—	—	1	1	—	—	—	—	2	—	1	—	1	1	—	—	3	6	6	
	13	22	118	136	311	285	76	59	23	23	27	24	14	18	10	9	11	8	2	3	1	1	1	—	607	588	

43

Imported.

Typhoid fever ... ..	—	—	2	—	3	4	2	2	8	3	9	5	6	1	4	1	—	2	—	1	—	—	—	34	19
Malaria ... ..	—	—	—	—	1	—	—	—	1	1	3	1	3	—	5	1	1	—	—	—	—	—	—	17	3
Scarlet fever ... ..	—	—	—	1	3	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	2
Diphtheria ... ..	—	—	3	5	—	—	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	4	6
Measles ... ..	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Whooping cough ... ..	—	—	—	1	3	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	3
Tuberculosis ... ..	—	—	—	—	—	—	—	—	1	—	—	2	—	1	1	1	1	—	—	1	—	—	—	3	6
Meningococcal meningitis ...	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
—	—	—	5	9	12	6	2	4	10	4	12	8	9	2	11	3	2	2	3	2	—	1	—	66	41

NOTIFICATIONS OF INFECTIOUS DISEASES—ALL COLOURED RACES—for the Year ended June 30th, 1928.  
Age Incidence.

	0—1 years.		—5 years.		—10 years.		—15 years.		—20 years.		—25 years.		—35 years.		—45 years.		—55 years.		—65 years.		—75 years.		over 75 years.		Total.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Males.	Females.
Typhoid fever ... ..	—	—	1	1	—	—	2	1	—	—	4	2	5	—	1	2	—	—	—	—	—	—	—	—	13	6
Malaria ... ..	—	—	1	2	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	3	2
Scarlet fever ... ..	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Diphtheria ... ..	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Measles ... ..	2	2	6	6	—	—	2	1	—	—	1	1	1	—	—	—	—	—	—	—	—	—	—	—	12	12
Whooping cough ... ..	6	4	13	10	3	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	22	15
Tuberculosis ... ..	—	—	—	1	—	—	1	—	1	1	—	1	2	—	—	5	—	—	—	—	—	—	—	—	8	5
Meningococcal meningitis ...	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—
Puerperal fever ... ..	—	—	—	—	—	—	—	—	1	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	3
Erysipelas ... ..	1	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2
Lethargic encephalitis ... ..	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
<hr/>																										
	9	8	21	23	4	4	4	5	3	2	2	7	5	9	1	6	2	—	—	—	—	—	—	—	63	48
<hr/>																										
<b>Imported.</b>																										
Typhoid fever ... ..	—	—	—	—	—	—	—	1	—	2	—	—	—	7	—	—	—	—	—	—	—	—	—	—	10	—
Malaria ... ..	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	1	1
Tuberculosis ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	2	—	2	—	—	—	—	5	2
<hr/>																										
	—	—	—	—	—	—	—	1	—	2	—	1	—	7	1	1	2	2	—	2	—	—	—	—	16	3



DISTRICT DISTRIBUTION OF NOTIFIED INFECTIOUS DISEASES: ALL RACES: for the Year ended June 30th, 1928.

	Typhoid Fever.				Malaria.				Scarlet Fever.				Diphtheria.				Measles.				Whooping cough.				Tuberculosis.				Poliomyelitis.				Meningococcal Meningitis.				Puerperal fever.				Erysipelas.				Lethargic encephalitis.				
	European.		Col'd.		E.		C.		E.		C.		E.		C.		E.		C.		E.		C.		E.		C.		E.		C.		E.		C.		E.		C.										
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.											
North West Central	—	3	—	1	5	3	—	—	7	11	—	—	—	—	—	—	31	33	—	—	14	14	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
South West Central	1	3	—	1	1	5	—	—	2	4	—	—	—	2	—	—	23	19	—	—	8	20	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—				
North East Central	4	1	1	—	3	2	—	—	7	14	1	—	—	1	—	—	21	20	4	1	15	20	—	2	—	1	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—				
South East Central	1	1	1	—	5	5	—	—	15	9	—	—	1	—	—	—	16	10	—	—	8	10	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—				
Good Hope	2	2	—	—	2	1	—	—	1	4	—	—	—	—	—	—	10	14	—	—	4	7	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Pretoria West	6	5	—	—	13	10	—	—	15	21	—	—	3	4	—	—	68	54	1	—	13	5	—	—	—	—	—	—	—	1	—	—	—	—	2	—	—	1	—	—	—	—	—	—	—				
Defence and Prison Reserves	—	2	1	1	2	1	—	—	4	4	—	—	—	—	—	—	4	5	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Railway Reserve	—	—	1	—	1	2	1	—	6	4	—	—	1	—	—	—	16	20	4	5	6	2	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Sunnyside	2	3	—	—	9	—	—	—	12	21	—	—	3	1	—	—	22	8	—	1	29	26	—	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—				
Arcadia and Rietendale	4	1	—	1	6	5	—	—	4	6	—	—	1	3	—	—	14	7	—	—	17	14	—	1	—	—	—	—	—	—	—	—	—	—	—	1	1	1	—	—	—	—	—	—	—				
Riviera and Rietendale	2	2	—	—	—	—	—	—	2	1	—	—	—	—	—	—	4	3	—	—	9	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Hatfield	1	1	—	—	1	2	—	—	4	1	—	—	1	2	—	—	26	23	1	—	11	15	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—				
Brooklyn and Hillcrest	—	1	—	—	—	1	—	—	5	2	—	—	—	1	—	—	23	25	1	—	8	4	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—				
New Muckleneuk and Groenkloof	—	—	4	—	—	—	—	—	2	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Roberts Heights	1	1	—	1	—	—	—	—	—	—	—	—	1	—	—	—	7	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Cape Location & Asiatic Bazaar	—	—	3	—	—	—	1	1	—	—	—	1	—	—	—	2	—	—	1	3	—	—	15	7	—	—	3	2	—	—	—	—	1	—	—	—	—	1	—	—	—	—	1	—	—				
Marabastad	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	3	2	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Schoolplaats	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—				
Bantule	—	—	1	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1	—	—	—	3	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Total European	24	26	—	—	48	37	—	—	86	102	—	—	11	14	—	—	286	252	—	—	143	145	—	—	5	1	—	—	—	1	—	—	—	1	2	—	—	—	2	—	—	3	6	—	—	—	—		
Total Coloured	—	—	13	6	—	—	3	2	—	—	1	1	—	—	—	2	—	—	12	12	—	—	22	15	—	—	8	5	—	—	—	—	—	—	2	—	—	—	—	3	—	—	1	2	—	—	—	1	—





Table No. 14.

**NOTIFICATION OF INFECTIOUS DISEASES: All Races: per month for the Year ended June 30th, 1928.**

			Typhoid fever.	Malaria.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.	Tuberculosis.	Poliomyelitis.	Meningococcal Meningitis.	Puerperal fever.	Erysipelas.	Lethargic encephalitis.
1927.														
July.	European	Residents	—	—	12	1	14	9	—	—	—	—	2	—
		Imported	—	—	—	—	1	—	—	—	—	—	—	—
	Coloured	Residents	—	—	—	—	—	—	—	—	1	—	—	—
		Imported	—	—	—	—	—	—	—	—	—	—	—	—
August.	European	Residents	1	—	5	1	84	18	—	—	—	—	2	—
		Imported	—	—	—	1	—	—	—	—	—	—	—	—
	Coloured	Residents	—	—	—	—	3	1	1	—	—	—	—	—
		Imported	—	—	—	—	—	—	1	—	—	—	—	—
September.	European	Residents	1	—	31	1	102	27	2	1	—	—	—	—
		Imported	1	—	—	—	—	—	—	—	—	—	—	—
	Coloured	Residents	—	—	—	—	5	—	1	—	—	—	—	—
		Imported	—	—	—	—	—	—	1	—	—	—	—	—
October.	European	Residents	1	—	10	—	150	27	—	—	—	—	—	—
		Imported	1	—	—	—	—	—	2	—	—	—	—	—
	Coloured	Residents	2	—	—	—	5	—	1	—	—	—	1	—
		Imported	—	—	—	—	—	—	—	—	—	—	—	—
November.	European	Residents	9	—	4	—	82	23	3	—	1	—	—	—
		Imported	7	—	—	—	1	1	1	—	2	—	—	—
	Coloured	Residents	1	—	—	—	5	1	2	—	—	—	—	—
		Imported	1	—	—	—	—	—	3	—	—	—	—	—
December.	European	Residents	5	1	1	1	63	23	—	—	—	1	1	—
		Imported	4	2	1	—	—	1	—	—	—	—	—	—
	Coloured	Residents	3	—	—	—	2	2	3	—	1	1	—	—
		Imported	1	—	—	—	—	—	1	—	—	—	—	—
1928.														
January.	European	Residents	7	5	6	1	25	15	—	—	—	—	—	—
		Imported	3	1	1	—	—	1	1	—	—	—	—	—
	Coloured	Residents	1	—	—	—	2	1	3	—	—	—	1	—
		Imported	1	—	—	—	—	—	1	—	—	—	—	—
February.	European	Residents	5	13	5	—	2	9	1	—	1	—	—	—
		Imported	10	1	—	—	—	1	1	—	—	—	—	—
	Coloured	Residents	3	—	1	2	—	—	1	—	—	—	—	1
		Imported	—	—	—	—	—	—	—	—	—	—	—	—
March.	European	Residents	9	26	10	7	5	22	—	—	—	—	1	—
		Imported	11	3	—	2	—	—	—	—	—	—	—	—
	Coloured	Residents	4	1	—	—	—	7	—	—	—	—	—	—
		Imported	2	1	—	—	—	—	—	—	—	—	—	—
April.	European	Residents	6	25	23	4	5	46	—	—	—	—	—	—
		Imported	5	8	—	3	—	1	—	—	—	—	—	—
	Coloured	Residents	2	2	—	—	—	9	—	—	—	—	1	—
		Imported	3	1	—	—	—	—	—	—	—	—	—	—
May.	European	Residents	5	10	37	8	4	37	—	—	—	1	1	—
		Imported	11	1	1	1	—	1	3	—	—	—	—	—
	Coloured	Residents	3	2	—	—	1	12	1	—	—	—	1	—
		Imported	2	—	—	—	—	—	—	—	—	—	—	—
June.	European	Residents	1	5	44	1	2	32	—	—	1	—	2	—
		Imported	—	4	2	3	—	—	1	—	—	—	—	—
	Coloured	Residents	—	—	1	—	1	4	—	—	—	1	—	—
		Imported	—	—	—	—	—	—	—	—	—	—	—	—

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